

Hollis School Board
Wednesday, October 4, 2017
Hollis Upper Elementary School
6:00 PM

All Times are estimates and subject to change without notice

- 6:00 Call to Order
- 6:05 Agenda Adjustments
Approve Meeting Minutes
Nominations/Resignations/Correspondence
- 6:15 Public Input
- 6:25 Discussion
 - Update on HSTEP
- 6:45 Principal's report
 - 2017-2018 Goals presentation
- 7:30 Deliberations
 - To see what action the Board will take regarding the policy memo submitted by the policy committee
- 7:35 Non – Public under RSA 91-A: 3II (a) Compensation and/or (c) reputation
- 7:50 Motion to adjourn

MEMORANDUM

TO: Hollis School Board
FR: Charlie Niebling and Dick Henry, Consultants to HSTEP Project
RE: Proposed Gap Foaming at HUES: Procedure, Materials, Safety Considerations, Timeline to Complete Work
DA: September 26, 2017

Introduction and Background

During the course of the energy study completed in 2016-2017, we discovered a significant source of air and moisture infiltration at the Hollis Upper Elementary School. There exists a 3-4" gap between CMU walls and corrugated metal roof deck in external walls of the 1997 addition to the building. This gap is estimated at 1,100 lineal feet, and thus represents a hole of approximately 363 square feet which if square would be 19' on a side. The gap in most places is filled with rock wool but this does not create an air barrier. Therefore, this wall gap allows outside cold dry air to move into the building in the winter and warm moist air in the summer. Because the entire building operates at a significant negative pressure for most of the year this poses both a moisture and a temperature problem year-round. Closing and properly air sealing this gap was identified as a major opportunity to improve the insulation and energy efficiency of the building, and also potentially reduce moisture issues that have been contributing to other problems in the building. This was confirmed by a site visit from Kohta Ueno of Building Science Corporation, who stated in his report: "The field investigation found significant gaps between the corrugated metal roof deck and the CMU wall (especially at joist pockets), and that outside air is apparently being drawn in at this opening. There was fire safing (mineral fiber insulation) in the joint; however, it had gaps; more importantly, fibrous insulation is not an air barrier."

In the course of the building review by Mr. Ueno we also discovered that the panels above the windows and the brick veneer are Exterior Insulation Finishing System (EIFS) from the 1970's. This was and still is a highly problematic system and in the HUES installation is particularly troubling as there is essentially no insulation behind the panels. Currently there is a 6" space behind these panels that feeds directly into the above described gap. Although they look identical from the outside, the vertical panels between the windows and the brick veneer is actually a cement panel that is slightly better insulated and does not present the same problem. The result is that outside air is currently being sucked into the building from this large space, up to the gap at the roof/wall interface and into the classrooms. To remedy this situation the EIFS panels should be removed, the structural joint to the windows and brick veneer below sealed, and the space above the windows thoroughly insulated with 5" to 6" of roxul, an inert lava based insulation that is impervious to insects, drains well, and provides excellent insulation. A new outside cladding of hardy board or similar material would then be installed to match the EIFS look. We have yet to price this solution and it is currently not included in the project budget, but if adequate funds remain next summer we recommend that this measure be implemented.

Proposed Remedy

As the study moved to implementation following the successful March 2017 vote, we engaged David Ely of Windy Hill Architects to help develop a design specification for the closure and proper air sealing of this gap. In early August Mr. Ely initially proposed the use of a spray applied fire stop/fire safing to provide air sealing over the mineral fiber insulation as an effective, safe and affordable remedy to seal this gap. Materials proposed were STI Firestop specseal AS200, 3M fire barrier spray, and Hilti Firestop Joint Spray. This design specification was formatted as an RFP by Structure Tone and submitted for consideration by several vendors. Structure Tone had difficulty finding a vendor capable, willing or able to do this work in the fall, 2017 timeframe specified in the RFP.

It was subsequently learned that the new Hollis building inspector had concerns about the use of the term “fire stop/fire safing” and what this meant in this context. In late August, Jim Hardy, Ric Brewster, Dick Henry, Charlie Niebling and Dave Ely held a conference call to reconsider the use of conventional closed cell foam and intumescent paint, materials with which many insulation contractors are much more familiar and to which the building inspector had no objections. Mr. Ely developed a new design specification (attached) calling for either the use of Accella Foamsulate 220 Urethane Spray Foam and DC 315 International Fireproof Technology Intumescent Coating or Flame Seal – TB, Flame Seal Products Inc. Intumescent Coating, OR LaPolla FoamLok 2000 4G Urethane Spray Foam with LaPolla Fire-Lok DC 315, LaPolla Industries Inc. Intumescent Coating. The technical data sheets and safety information for these products is attached to this memorandum. The materials are UL listed, and NFPA rated as safe for school installation. A ventilation period of 24-48 hours is recommended while the foam insulation cures. The materials would be applied by trained, experienced contractors. Mr. Ely is also specifying a blower door test before and after the foam sealing is complete in order to verify that this has effectively mitigated the current air infiltration in the building from the gap between the outside walls and the roof.

Venting of Brick Veneer – In conjunction with the work to seal the gap at the roof/wall intersection we will install small vents at the bottom and the top of the brick veneer to allow for ventilation to occur behind the brick veneer. This will reduce the potential for moisture build up there. Historically this space has been vented into the classrooms. Since that pathway will now be blocked off, ventilation of the brick veneer is a precautionary step recommended by Building Science Corporation to insure moisture cannot build up behind these portions of the exterior wall.

This proposed solution should go a long way towards solving the infiltration of cold dry air in the winter and warm humid air in the summer. It should significantly reduce the dehumidification load on the Munter’s unit and hopefully save electricity. The insulated space will also reduce the heating load for each of these rooms and eliminate drafts. By now having complete control of inside air in the building, relative humidity can be controlled making for a much better learning environment. It will also allow the phase change materials to operate more effectively as the plenum above the rooms will no longer be cooler than the room in the winter and warmer than the room in the summer.

Proposed Timeline

We believe this is a safe and effective remedy to air seal the gap. Once the school board is assured of its safety, both short-term and long-term, we intend to translate Mr. Ely’s new design specification into an RFP and circulate it to vendors with the intention of delaying this work until the early summer of 2018, after school ends in June. With this more relaxed time frame we believe we will have better vendor competition and pricing, and can schedule at a time when the building will be vacant. Each room needs to be vented for 24 -48 hours after application after which the materials are inert and result in no further offgassing (there is a small amount of ammonia offgassing after the foam is installed).

The project team is prepared to answer any questions the school board has at your October 4 board meeting. No further action will be taken on this component of the HSTEP project until the school board is fully confident in the proposed remedy and safety considerations.

SPECIFICATIONS

SPRAY FOAM INSULATION AND THERMAL BARRIER

PART 1 GENERAL

- 1. SECTION INCLUDES:
 - A. CLOSED CELL SPRAY FOAM INSULATION
 - B. THERMAL BARRIER
- 2. MATERIALS
- 3. PRODUCT DATA: MANUFACTURER'S DATA SHEETS ON EACH PRODUCT TO BE USED.
- 4. MANUFACTURING: INDICATE DIMENSIONS AND THICKNESS OF PRODUCTS.
- 5. QUALITY ASSURANCE

PART 2 INSTALLATION

- 1. INSTALLER QUALIFICATIONS: PRODUCTS LISTED IN THIS SECTION SHALL BE INSTALLED BY INSTALLERS WHOSE TRAINING AND CERTIFICATION RECORDS HAVE BEEN VERIFIED AND APPROVED IN WRITING BY THE ARCHITECT. ALL WORK SHALL BE SUBJECT TO INSPECTION AND APPROVAL BY THE ARCHITECT. THE ARCHITECT'S EVALUATION OF APPLICABLE PREPARATION, TECHNIQUES AND APPLICATION PROCEDURES SHALL BE FINAL AND NOT SUBJECT TO DISPUTE.
- 2. DO NOT PROCEED WITH REMAINING WORK UNTIL WORKMANSHIP IS APPROVED BY ARCHITECT.
- 3. ADEQUATE PROTECTION SHALL BE PROVIDED TO PREVENT DAMAGE TO EXISTING WORK.
- 4. DELIVERY, STORAGE AND HANDLING
- 5. DELIVER AND STORE PRODUCTS IN MANUFACTURER'S UNOPENED PACKAGING BEARING ALL LABELING AND INSTRUCTIONS. PRODUCTS SHALL BE STORED IN A DRY, VENTILATED AREA FOR INSTALLATION.
- 6. STORE AND HANDLE MATERIALS PER MANUFACTURER'S INSTRUCTIONS.
- 7. PRODUCT CONDITIONS
- 8. MAINTAIN ENVIRONMENTAL CONDITIONS (TEMPERATURE, HUMIDITY, AND VENTILATION) WITHIN MANUFACTURER'S RECOMMENDED RANGES. PRODUCTS OUTSIDE MANUFACTURER'S RECOMMENDED RANGES SHALL BE REJECTED.
- 9. APPLY INSULATION WHEN AMBIENT TEMPERATURES ARE UNDER THOSE AS REQUIRED BY MANUFACTURER.
- 10. SURFACES MUST BE CLEAN AND DRY PRIOR TO APPLICATION OF SPRAY FOAM.
- 11. CLOSED CELL SPRAY FOAM INSULATION AND COMPATIBLE OVERCOAT THERMAL BARRIER ACCEPTABLE FOR SPRAY FOAM AND THERMAL BARRIER MANUFACTURER.
- 12. ACCEPTABLE FORMULATE 200 URETHANE SPRAY FOAM:
 - A. DC 95 INTERNATIONAL FIREPROOF TECHNOLOGY, INC. INTERLOCK COATING
 - B. LAYLLA POLY-LOCK 2000-40 URETHANE SPRAY FOAM
 - C. LAYLLA POLY-LOCK 2000-40 URETHANE SPRAY FOAM
- 13. APPROVED ALTERNATES (MEETING THE CRITERIA OF THIS SPECIFICATION)
 - A. INTERLOCK COATING
 - B. INTERLOCK COATING
 - C. INTERLOCK COATING
 - D. INTERLOCK COATING
 - E. INTERLOCK COATING
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 - X. INTERLOCK COATING
 - Y. INTERLOCK COATING
 - Z. INTERLOCK COATING

PART 3 FINISHES

- 1. PROVIDE CLOSED CELL SPRAY FOAM INSULATION AND INDEPENDENT THERMAL BARRIER OVER ALL EXPOSED SURFACES OF CHU WALL, AND TYPICAL ROOF DECK, AND IN OPEN FLUTES OF ROOF DECK.
- 2. INSTALL THERMAL BARRIER COMPLETELY COVERING SPRAY FOAM.
- 3. INSTALL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
- 4. PROVIDE THERMAL BARRIER TO TRULY COVER THICKNESS OF (ONE) INCH WITHOUT JOINT.
- 5. APPLY THERMAL BARRIER TO THICKNESS REQUIRED BY MANUFACTURER FOR THERMAL BARRIER BLOCKER TEST WITH ARCHITECT. RE-APPLY SPRAY FOAM AND THERMAL BARRIER TO AREAS FOUND TO HAVE INCOMPLETE SEAL.
- 6. COORDINATE BLOCKER TEST WITH ARCHITECT. RE-APPLY SPRAY FOAM AND THERMAL BARRIER TO AREAS FOUND TO HAVE INCOMPLETE SEAL.
- 7. REPAIR AND REPLACE DAMAGED PRODUCTS.
- 8. CLEAN SPRAY FOAM AND INDEPENDENT THERMAL BARRIER FROM ALL SURROUNDING AREAS.
- 9. FIELD QUALITY CONTROL
- 10. PROTECTION
- 11. PROTECTION SHALL INCLUDE BLOCKER DOOR TEST BY ARCHITECT FOR COMPLETE AIR SEAL.
- 12. PROTECT INSTALLERS AND OCCUPANTS DURING INSTALLATION PER MANUFACTURER'S INSTRUCTIONS.
- 13. PROTECT ADJACENT AREAS FROM OVERSPRAY AND SPILLS.
- 14. TOUCH-UP REPAIR OR REPLACE DAMAGED PRODUCTS.

BRICK VENT COVER

PART 1 GENERAL

- 1. SECTION INCLUDES:
 - A. VERTICAL BRICK VENTS IN BRICK WALLS TOP AND BOTTOM WITH RETROFIT VENT COVERS
- 2. PRODUCTS
- 3. BRAND OF DRAIN IS TYPICAL NETWORK WEAP HOLE COVER
- 4. ALTERNATES
- 5. MANUFACTURER'S PRODUCT DATA FOR REVIEW BY ARCHITECT FOR APPROVAL AND OWNER RESERVE THE RIGHT TO SELECT AN ALTERNATE.

PART 2 INSTALLATION

- 1. EXAMINE AREAS AND CONDITIONS UNDER WHICH WORK IS TO BE PERFORMED AND NOTIFY ARCHITECT IMMEDIATELY OF ANY DISCREPANCIES OR UNUSUAL CONDITIONS.
- 2. COORDINATE WITH MANUFACTURER'S RECOMMENDATIONS AND INSTALLATION INSTRUCTIONS.
- 3. DO NOT PROCEED UNTIL UNSATISFACTORY CONDITIONS HAVE BEEN CORRECTED.
- 4. EXAMINE INSTALLED VENT COVERS AND MORTAR PATCHES TO ENSURE PROPER AND NEAT INSTALLATION.
- 5. REPAIR AND REPLACE DAMAGED PRODUCTS.
- 6. PATCHING MORTAR TO MATCH EXISTING MORTAR FOR APPEARANCE.
- 7. REPLACE DAMAGED BRICKS IN KIND AS NEEDED.
- 8. ALL SURFACES ADJACENT TO THE WORK TO BE FREE OF EXCESS MORTAR MATERIALS AND SOIL.

REVISIONS

REV 1 12-13-11
 REV 2 12-13-11
 REV 3 12-13-11

Windy Hill Associates
 ARCHITECTS
 1000 W. 10TH ST.
 SUITE 100
 DENVER, CO 80202

Hollis Upper Elementary School
 12 RURY LN, HOLLIS, NH

SECTION
 DRAWN BY: PAE
 DATE: AUG 1, 11

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DC-315

FIRE-LOK

THERMAL BARRIER

Product Design

LAPOLLA FIRE-LOK is a single component, single application, spray or roller applied protective coating for use in Ignition Barrier and Thermal Barrier applications in combination with spray applied urethane foam insulations manufactured by Lapolla Industries, Inc. DC315 is a Certified Warnock Hersey listed and rated product which has passed certified testing for the **NFPA-286 Thermal Barrier and the Modified NFPA 286 for spray Ignition Barrier testing per AC 377 Appendix X.**

Product Use

Currently FIRE-LOK is approved for use as a Thermal Barrier over Lapolla Industries, Inc. FL-2000 4G and Air-Tight CC 2.0 pound closed cell insulation systems at a rate of 18 wet mils or 1.125 gallons per 100 square feet. FIRE-LOK is also approved for use as either a Thermal Barrier or Ignition Barrier with FOAM-LOK FL-500 or Airtight OC. When these products are applied at a thickness of 5 1/2 inches on the walls and 11 1/4 inches on the ceilings maximum, the FIRE-LOK must be applied at a rate of 20 wet mils (1.25 gallons per 100 square feet) to meet the Thermal Barrier requirements of the NFPA 286 and 4 wet mils (1/4 gallon per 100 square feet) to meet the Ignition Barrier requirements per AC 377 appendix X.

FIRE-LOK has a spread rate of 400 sq. ft. per gallon as an ignition barrier over Lapolla .5 lb. foam, and 80 sq. ft. / gal as a 15 minute thermal barrier over Lapolla .5 lb. foam. Over Lapolla FL 2000 foam, FIRE-LOK has a yield of 73 sq. ft. and over FL 2000-4G foam, a yield of 88 sq. ft. per gallon when used as a thermal barrier.

Application Requirements for Thermal and Ignition Barriers

FIRE-LOK	Wet mils	Dry mils	Coverage Rate
Thermal Barrier FL 2000/AT CC	22	14	73 sq. ft. per gal
Thermal Barrier FL 500/ AT OC	20	13	80 sq. ft. per gal
Ignition Barrier FL 500/ AT OC	4	3	400 sq. ft. per gal
Thermal Barrier FL 2000 4G	18	12	88 sq. ft. per gal

Physical Properties

Properties	Value
Finish	Flat
Color	Off-White
V.O.C.	47g/L
Solids By Volume	65%
Specific Gravity	1.30+/-0.05 g/cc
Drying Time	@77°F & 50% R.H. – To touch 1 – 2 hours, to recoat if required 2 to 4 hours
Flash Point	None
Reducing or Cleaning Agent	Water
Shelf Life	2 years from date of manufacture in unopened containers and stored at 5°C to 35°C (40°F to 95°F)
5 Gal. Container Weight	58 lbs.
55 Gal. Container Weight	670 lbs.

Product Credentials/Characteristics

- NFPA-286 Approved
- Passed strict EPA – VOC and AMQD tests
- Non Toxic, Low Vapors, Low VOCs
- Two year shelf life
- For Thermal Barrier testing per NFPA 286 and Ignition Barrier testing per AC377 appendix X.
- CAL-1350

Product Application

Stir thoroughly and apply wet film thickness per specific test reports. Do not apply at temperatures below 50°F.

Application Equipment

FIRE-LOK can be applied by brush, roller or airless sprayer.

Brushing: Use top quality polyester/nylon blend brushes such as those supplied by Purdy, Wooster, or equivalent.

Rolling: 3/8" polyester blend nap roller covers generally work well when applying FIRE-LOK by roller.

Spraying:

Airless Spray:	Electric
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Pump:	(Graco) TexSpray Mark 4 or equivalent
GSM:	1.25
Tip:	524 - 529 or equivalent.
Filter:	30 mesh, removal of filter is recommend from gun and machine
Hose:	3/8" diameter airless spray line for the first 100' from pump and 1/4" x 3' whip

Pump:	(Graco) TexSpray Mark 5 or equivalent
GSM:	1.25
PSI:	3300
GPM:	1.35
Tip:	524 - 529 or equivalent.
Filter:	30 mesh, removal of filter is recommend from gun and machine
Hose:	3/8" diameter airless spray line for the first 100' from pump and 1/4" x 3' whip

Airless Spray:	Gas
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Pump:	(Graco) GMAX 7900 or equivalent
PSI:	3300
Max GPM:	2.2
Tip:	524 - 529 or equivalent.
Filter:	30 mesh, removal of filter is recommend from gun and machine
Hose:	3/8" diameter airless spray line for the first 100'-300' from pump and 1/4" x 3' whip



DC-315

Rev. Date: 7/21/2016

FIRE-LOK

THERMAL BARRIER

Pump:	(Graco) GH 833 or equivalent
PSI:	4000
Max GPM:	4.0
Tip:	524 - 529 or equivalent.
Filter:	30 mesh, removal of filter is recommend from gun and machine
Hose:	3/8" diameter airless spray line for the first 100'-300' from pump and 1/4" x 3' whip

FIRE-LOK DC-315 is a **Class I** formulation, as Tested per ASTM E-84, and at a thickness of .26 inches possesses the flammability characteristics shown below:

ASTM Method E84	Class I
Flame Spread	≤0
Smoke Development	≤10

Surface Preparation

Surfaces must be clean, dry and free of all foreign matter.

Material Preparation

FIRE-LOK must be thoroughly mixed prior to application. Failure to do so will compromise the materials performance and may create issues with equipment used for the application of the product. Mechanical stirring with a high speed drill and a paddle appropriate for the container size is recommended. Material should be stirred from the bottom up making sure the bottom and sides are scraped with a paint stick during the mixing process to ensure all materials are completely mixed prior to the application. Material should be mixed to a creamy consistency with no lumps. Thinning is not usually needed, but if the material has been exposed to prolonged periods of high temperatures during storage, evaporation of the water based material may have taken place. Typically the liquid level should be about 3 inches from the top of the 5 gallon pail. If the level of material is lower water may be added during the mixing to address this issue.

Although this material poses no danger with regard to health and safety, gloves, goggles and a particle mask should be used during the application of the material. The area should also be well ventilated to remove any odors that may be irritating to the applicator or his customer.

General Safety, Toxicity, Health Data

Safety Data Sheets are available on this coating material. Any individual who may come in contact with these products should read and understand the S.D.S. In case of emergency contact **CARECHEM EMERGENCY NUMBER** at (866) 928-0789.

WARNING: Avoid eye contact with the liquid or spray mist. Applicators should wear protective clothes, gloves and use protective cream on face, hands and other exposed areas.

CLEAN UP: Water

EYE PROTECTION: Safety glasses, goggles, or a face shield are recommended.

SKIN PROTECTION: Chemical resistant gloves are recommended. Cover as much of the exposed skin area as possible with appropriate clothing.

RESPIRATORY PROTECTION is MANDATORY! Respiratory protective equipment, impervious foot wear and protective clothing are required at all times during spray application. Contact Lapolla for a copy of the Model Respiratory Protection Program developed by API.

INGESTION: Do not take internally.

Consider the application and environmental concentrations in deciding if additional protective measures are necessary.

Disclaimer

The data presented herein is not intended for use by nonprofessional applicators, or those persons who do not purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer.

All guarantees and warranties as to products supplied by Lapolla Industries shall have only those guarantees and warranties expressed in writing by the manufacturer. The buyer's sole remedy as to any material claims will be against the applicator of the product. The aforementioned data on this product is to be used as a guide and is subject to change without notice. The information herein is believed to be reliable, but unknown risks may be present. **NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING PATENT WARRANTIES OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR USE, ARE MADE BY LAPOLLA WITH RESPECT TO OUR PRODUCTS OR INFORMATION SET FORTH HEREIN.**

To the best of our knowledge, the technical data contained herein is true and accurate at the date of issuance and is subject to change without prior notice. User must contact Lapolla Industries, Inc. to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Lapolla Industries, Inc.'s quality control. We assume no responsibility for coverage, performance or injuries resulting from use.

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FOAM-LOK™ 2000-4G

Closed-Cell Spray Insulation



Product Use and Design

FOAM-LOK™ 2000-4G is a Closed-Cell spray applied foam, which was developed using an EPA approved 4th generation blowing agent which when installed following application guidelines adheres tenaciously to framing members and substrates. FOAM-LOK™ 2000-4G Closed-Cell spray foam provides superior energy economy and durability while significantly reducing unmanaged moisture and air infiltration.

As a component of a "systems approach" to proper building envelope construction, FOAM-LOK™ 2000-4G Closed-Cell spray foam provides exceptional performance in minimizing heat transfer, moisture gain, air leakage, and improving racking strength.

TYPE : I, II, III, IV, V (A&B) Construction

Recommended Product Applications

- Walls
- Floors
- Unvented Crawl Spaces
- Concrete Slabs
- Cold Storage
- Unvented Attics
- Vented Attics
- Vented Crawl Spaces
- Ducts
- Freezers
- Ceilings
- Piping
- Foundations
- Tanks
- Coolers

Recommended Processing Parameters

Processing Designation	Regular
Winter	20-50°F
Regular	50-95°F
Summer	95°F- and above

Optimum hose pressure and temperature may vary as a function of the type of equipment, ambient and substrate conditions, and the specific application. It is the responsibility of the applicator to properly interpret equipment technical literature, particularly information that relates acceptable combinations of gun chamber size, proportioner output, and material pressures.

Processing Designation	FOAM-LOK™ 2000-4G
Equipment Dynamic Pressure	1,000 - 1,400 psi
Preheat Temperature	125 - 135 °F (52 - 57° C)
Hose Heat Temperature	125 - 135 °F (52 - 57° C)
Drum Storage Temperature	65 - 85 °F (18 - 30° C)
Shelf Life:	6 months when stored properly.

Material shelf life: 6 months when stored within recommended temperature range.

- 2:1 transfer pumps are recommended for material transfer from container to the proportioner.

- **CAUTION:** Extreme care must be taken when removing and reinstalling drum transfer pumps so as NOT to reverse the "A" and "B" components.

- Do not circulate or mix other suppliers' "A" or "B" component into FOAM-LOK™ 2000-4G containers.

Physical Properties

Properties	Test Method/ Requirements	Value
Aged "R" Value	ASTM C518	1" - 6.2 per inch 4" - 6.8 per inch
Compressive Strength	ASTM D1621	25-30 psi
Core Density	ASTM D1622	2.0-2.2 lbs./ft3
Air Leakage	ASTM E283-04	< 0.02L/s/M2 at 1.0 inches
Infiltration		.008/L/S/m² at 1"
Exfiltration		.009/L/S/m² at 1"
Closed-Cell Content	ASTM D2856	> 90%
Water Absorption	ASTM D2842	2.36 %
Water Vapor Transmission @ 74°F, perm inch	ASTM E96 2.5 max	1.4 perms @ 1" .95 perms @ 1.4"
Dimensional Stability 28 days at 160°F, 100%RH	ASTM D2126 15% max by volume change	≤4%
Flammability	NFPA 259	1870 Btu/ft² 21.3 MJ/m²

Credentials/Certifications

• CCRR 1025

FOAM-LOK™ 2000-4G is a Class I formulation, as Tested per ASTM E84, and at a thickness of 4.0 inches possesses the flammability characteristics shown below: (UL 723, NFPA 255, UBC 8-1)

ASTM Method E84	Class I
Flame Spread	≤25 - <15>
Smoke Development	≤450 - <350>

ASTM E-119	1 Hour Load Bearing - Wood Stud
	2 Hour Non-Load Bearing - Wood Stud
	1 Hour Non-Load Bearing - Steel Stud
* Complies with testing per NFPA 285 maximum thickness 3 1/2" in specific constructions	

For specific construction requirement of ASTM E119 and NFPA 285 testing please contact Lapolla Technical Group or your sales representative.

*Diversified Testing Modified NFPA 286 PER AC 377 Appendix X	
Location	SPF Thickness *
Wall Cavities - "8	200 mm
Ceiling Cavities in Attics and Crawl Spaces - 12"	300 mm

- No Ignition Barrier Required



FOAM-LOK™ 2000-4G

Closed-Cell Spray Insulation

Rev Date 02/05/15

FOAM-LOK™

SPRAY FOAM INSULATION

Room Corner Fire Testing*

With 1/2" Thermal Barrier (Sheetrock)

*NFPA 286	
Location	SPF Thickness *
Wall Cavities	Up to 12 in (305mm)
Ceiling Cavities	Up to 12 in (305mm)

***THESE VALUES REFER TO THE TOTAL THICKNESS OF THE PRODUCT TESTED, NOT THE MAXIMUM THICKNESS ALLOWED PER PASS OR APPLICATION. THIS FOAM MUST NOT BE APPLIED IN EXCESS OF 3.0 INCHES PER APPLICATION. THE FOAM SHOULD BE ALLOWED TO COOL FOR 20 TO 30 MINUTES OR UNTIL THE SURFACE TEMPERATURE HAS RETURNED TO AMBIENT BEFORE ADDITIONAL APPLICATIONS OF FOAM ARE ATTEMPTED. FOAM APPLIED IN EXCESS OF 3.0 INCHES OR WITHOUT ALLOWING FOR COOLING MAY RESULT IN, BUT IS NOT LIMITED TO EXCESS HEAT BUILD-UP AND RESULT IN FIRE OR THE GENERATION OF OFFENSIVE ODORS THAT MAY NOT DISSIPATE WITH TIME.**

Thermal Barrier

IRC and IBC codes require that SPF be separated from the interior of a building by an approved fifteen (15) minute thermal barrier, such as 1/2" gypsum wall board or equivalent, installed per manufacturer's instructions and corresponding code requirements. There are exceptions to the thermal barrier requirement: (1) Code authorities may approve coverings based on fire tests specific to the SPF application. For example, covering systems that successfully pass large scale tests may be approved by code authorities in lieu of a thermal barrier; (2) SPF protected by 1" thick masonry does not need a thermal barrier. Certain materials that offer protection from ignition, called "ignition barriers," may not be considered as thermal barrier alternatives unless they comply with NFPA 286 or other full-scale burn tests. Applicators should request test data and code body approvals or other written indications of acceptability under the code to be sure that the product selected offers code-compliant protection.

Vapor Retarder

FOAM-LOK™ 2000-4G qualifies as a vapor retarder as defined by the International Code Council and ASHRAE (class II) at a minimum thickness of 1 1/2 inches. Building construction types with a persistent, high moisture drive require additional moisture remediation, as local building codes dictate. This is including climate zones 5 and higher in the U.S., as defined in 2004 Supplement to the IRC, Table N1101.2.

Safety and Handling

Respiratory protection is **MANDATORY!** Lapolla requires that supplied air and a full face mask be used during the application of any spray applied foam system. Contact Lapolla Industries for a copy of the Model Respiratory Protection Program developed by CPI or visit their web site at www.polyurethane.org. Persons with known respiratory allergies should avoid exposure to the "A" component. The "A" component contains reactive isocyanate groups while the "B" component contains amine and/or catalysts with blowing agents. Both materials must be handled and used with adequate ventilation. The vapors must not exceed the TLV (0.02 parts per million) for isocyanates. Avoid breathing vapors. Wear a NIOSH approved respirator. If inhalation of vapors occur, remove victim from contaminated area and administer oxygen if breathing is difficult. Call a physician immediately. Avoid contact with skin, eyes, and clothing. Open containers carefully, allowing any pressure to be relieved slowly and safely. Wear chemical safety goggles and rubber gloves when handling or working with these materials. In case of eye contact, immediately flush with large amounts of water for at least fifteen minutes. Consult a physician immediately. In case of skin contact, wash area with soap and water. Wash clothes before reuse.

Positive pressure ventilation of the work area is required to minimize the accumulation of vapors in the work area during the application. Improper application techniques of this foam system must be avoided. This includes excessive thickness, off ratio material, and spraying into rising foam. The potential results of improperly applied materials may include but is not limited to, excessive heat build-up, and may result in a fire or offensive odors which may not dissipate with time and/or poor product performance due to improper density of the applied material. Large masses of sprayed materials should be avoided. When large masses are generated they should be removed from the area, cut into small pieces and allowed to cool before disposal. Failure to follow this recommendation may result in a fire. It is recommended that a fire extinguisher be located in an easily accessible portion of the work area.

Applicators should ensure the safety of the jobsite and construction personnel by posting appropriate signs warning that all "hot work" such as welding, soldering, and cutting with torches should take place no less than 35 feet from any exposed foam. If "hot work" must be performed all spray polyurethane foam should be covered with an appropriate fire or welder's blanket, and a fire watch should be provided.

In Case of Spills or Leaks

- Utilize appropriate personal protective equipment
- Ventilate area to remove vapors
- Contain and cover spilled material with a loose, absorbent material such as oil-dry, vermiculite, sawdust or Fuller's earth
- Shovel absorbent waste material into proper waste containers
- Wash the contaminated areas thoroughly with hot, soapy water
- Report sizeable spills to proper environmental agencies

In Case of Fire

Extinguishing Media-Dry chemical extinguishers such as mono ammonium phosphate, potassium sulfate, and potassium chloride. Additionally, carbon dioxide, high expansion (proteinic) chemical foam, or water spray for large fires.

DISCLAIMER

The data presented herein is not intended for use by nonprofessional applicators, or those persons who do not purchase or utilize this product in the normal course of their business. The potential user must perform any pertinent tests in order to determine the product's performance and suitability in the intended application, since final determination of fitness of the product for any particular use is the responsibility of the buyer.

All guarantees and warranties as to products supplied by Lapolla Industries shall have only those guarantees and warranties expressed in writing by the manufacturer. The buyer's sole remedy as to any material claims will be against the applicator of the product. The aforementioned data on this product is to be used as a guide and is subject to change without notice. The information herein is believed to be reliable, but unknown risks may be present. **NO WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING PATENT WARRANTIES OR WARRANTIES OF MERCHANTABILITY OR FITNESS FOR USE, ARE MADE BY LAPOLLA WITH RESPECT TO OUR PRODUCTS OR INFORMATION SET FORTH HEREIN.**

To the best of our knowledge, the technical data contained herein is true and accurate at the date of issuance and is subject to change without prior notice. User must contact Lapolla Industries, Inc. to verify correctness before specifying or ordering. No guarantee of accuracy is given or implied. We guarantee our products to conform to Lapolla Industries, Inc.'s quality control. We assume no responsibility for coverage, performance or injuries resulting from use.





DC 315 applied over Spray Polyurethane Foam (SPF), is an Alternative Barrier System in "Section 2603.9 Special Approval" as a thermal barrier. To be approved as an Alternative Barrier System, DC 315 is applied over a manufacturer's SPF and tested to the criteria of an NFPA 286, UL 1715, UL 1040, or FM 4880 for duration of 15 minutes by an accredited fire testing facility. Products that pass an ignition barrier tested under **AC 377 Appendix X** are not appropriate alternative thermal barriers and cannot be used. Depending on your particular application, either ignition or thermal barriers are required by the International Building Code (IBC).



Properties	Value
Finish	Flat
Color	Ice Grey
V.O.C.	47g/L
Solids By Volume	67%
Specific Gravity	1.30+/-0.05 g/cc
Drying Time	@77°F & 50% R.H. – To touch 1 – 2 hours, to recoat if required 2 to 4 hours
Flash Point	None
Reducing or Cleaning	Water
Shelf Life	1 year from date of manufacture in unopened containers and stored at 10 °C to 27°C (50°F to 80°F)
5 Gal. Container Weight	58 lbs.

Advantages of Using DC315 SPF

- DC 315 is the only 3rd party inspected fire protective coating for SPF
- Marked and Listed by Warnock Hersey Intertek W/N 20947
- Single coat coverage reducing labor and material costs equaling higher profits
- Industry leading spread rate
- Passed CAL 1350 - safe for use in schools and high occupancy buildings
- Passed strict EPA – V.O.C. and AQMD air emission requirements (for all 50 states)
- Approved for Incidental Food Contact complies with NSF/ANS1-51 requirements of USDA
- Easily applied with a sprayer, roller, or brush with no complicated mixing
- 1 year shelf life
- Fast and easy clean-up, with no waste and fast turnaround time
- Compatible with any paintable construction material
- Meets Life Safety Code 101
- Meets LEED's point requirements
- No formaldehyde

DC 315 is the most tested and approved product in the world for use as an, "Alternative Thermal Barrier Coating System" over Spray Polyurethane Foam (SPF).

Visit us at our website www.painttoprotect.com to obtain a current matrix of all the manufacturer's foams DC 315 has been tested and approved as Thermal or Ignition barriers in compliance with current IBC codes.

If a coating has not passed a full scale test on a manufacturer's foam it cannot be used on that foam; there are no exceptions in the IBC Code!

Building Code Fire Performance Requirements for SPF:

The International Building Code (IBC) mandates that SPF be separated from the interior of the building by a 15 minute thermal barrier, or other approved covering. DC 315 passed certified NFPA 286 and UL 1715 test over a variety of open and closed cell spray applied urethane foams that were conducted by ISA certified testing facilities. All tests performed comply with the requirements of 2006 IBC Section 803.2.1 & 2009 IBC Section 803.1.2, and Section 2603.9; 2012 IBC Section 803.1.2 and Section 2603.10 under "Special Approvals for Thermal Barriers over Foam Plastics". DC315 is WHI marked and certified via 3rd party inspection for quality assurance and consistency.

Alternative 15 min Thermal Barrier Assemblies (e.g. Exposed SPF or SPF with a Thermal Barrier Protective Covering)

The assembly must remain in place for 15 minutes during specified large-scale fire tests, such as NFPA 286, UL 1715, UL 1040, or FM 4880.

Alternative Ignition Barrier Assemblies DC 315 meets the requirements for ignition barrier per **AC 377, Appendix X**

Application Equipment

DC 315 can be applied by brush, roller or airless sprayer. For maximum yield and coverage spray application is recommended.

Sprayers:

Pump:	(Graco) UltraMax 695 or equivalent
PSI:	3000
GPM:	1.00
Tip:	517 - 521 or equivalent.
Filter:	30 mesh, removal of filter is recommend from gun and machine
Hose:	3/8" diameter airless spray line for the first 100' from pump and 1/4" x 3' whip
Pump:	(Graco) TexSpray Mark 5 or equivalent
PSI:	3300
GPM:	1.35
Tip:	517 - 523 or equivalent.
Filter:	30 mesh, removal of filter is recommend from gun and machine
Hose:	3/8" diameter airless spray line for the first 100' from pump and 1/4" x 3' whip
Pump:	(Graco) GMAX 7900 or equivalent
PSI:	3300
GPM:	2.2
Tip:	517 - 529 or equivalent.
Filter:	30 mesh, removal of filter is recommend from gun and machine
Hose:	3/8" diameter airless spray line for the first 100' 300' from pump and 1/4" x 3' whip
Pump:	(Graco) GH 833 or equivalent
PSI:	4000
GPM:	4.0
Tip:	517 - 529 or equivalent.
Filter:	30 mesh, removal of filter is recommend from gun and machine
Hose:	3/8" diameter airless spray line for the first 100'-300' from pump and 1/4" x 3' whip

Prior to Applying DC 315 to Ensure Proper Adhesion: Surfaces must be clean, dry and free of all foreign matter. Adhesion of a coating to SPF requires the foam surface to have a slight profile or texture similar to an orange peel. Smooth or glossy foam surfaces must be flash coated with a light 3 - 4 mils Wet Film Thickness (WFT) of DC 315 and allowed to dry before applying the full application. Flash coating is a quick burst of a primer or DC 315, via airless sprayer over an area needing treatment. We also recommend flash coating around all pipes and air ducts.

Product Application

In order to validate warranty and confirm the installation complies with IFTI's best practices installer must obtain and read all current installation documents. Installation documents include Application Guide, Ventilation Guide and Job Work Report.

These documents can be downloaded at www.painttoprotect.com or by calling IFTI at 949.975.8588. "Job Work Records are an excellent way to track your installations and confirm compliance to your Building Official or Authority Having Jurisdiction. In the event of a concern on a job the installer is able to provide documented proof of the installation, for this reason IFTI recommends using these forms for all thermal barrier jobs."

Material Preparation

DC315 must be thoroughly mixed prior to application. Failure to do so will compromise the materials performance and may create issues with equipment used for the application of the product. Mechanical stirring with a high speed drill and a paddle appropriate for the container size is recommended. Material should be stirred from the bottom up making sure the bottom and sides are scraped with a paint stick during the mixing process to ensure all materials are completely mixed prior to the application. Material should be mixed to a creamy consistency with no lumps. Thinning is not usually needed, but if the material has been exposed to prolonged periods of high temperatures during storage, evaporation of the water based material may have taken place. Typically the liquid level should be about 3 inches from the top of the 5 gallon pail. If the level of material is lower, water may be added during the mixing to address this issue.

Temperature and Humidity

Ensure temperature and humidity are within specified limits for application. Failure to monitor and compensate for increased humidity may lead to blistering and/or delamination and will void warranty. Obtain a ventilation guide prior to commencing installation. **Ideal conditions are 16°C-32°C (62°F to 90°F) and a maximum of 65% Relative Humidity.**

Ventilation

When spraying in enclosed spaces, regardless of size, adequate ventilation is required to remove excess moisture from the application area. The use of fans may be required in some cases to ensure a minimum of 0.3 air changes per hour. **Prior to starting a job please be sure to download a complete current ventilation guide at www.painttoprotect.com**

General Safety, Toxicity, Health Data

Material Safety Data Sheets are available on this coating material. Any individual who may come in contact with these products should read and understand the M.S.D.S. In case of emergency contact CHEMTREC EMERGENCY NUMBER at 800-424-9300.

WARNING: Do not allow product to freeze. Store above 10°C (50°F) at all times.

WARNING: Avoid eye contact with the liquid or spray mist. Applicators should wear protective clothes, gloves and use protective cream on face, hands and other exposed areas.

EYE PROTECTION:

Safety glasses, goggles, or a face shield are recommended.

SKIN PROTECTION:

Chemical resistant gloves are recommended, cover as much of the exposed skin area as possible with appropriate clothing.

RESPIRATORY PROTECTION is MANDATORY!

Respiratory protective equipment, impervious foot wear and protective clothing are required at all times during spray application.

INGESTION: Do not take internally.

Consider the application and environmental concentrations in deciding if additional protective measures are necessary.

Limited Warranty

This product will perform as tested if applied and maintained according to our directions, instructions and techniques. If this product is found to be defective upon inspection by its representative, the seller will, at its option, either furnish an equivalent amount of new product or refund the purchase price to the original purchaser of this product. Seller will not be liable for any representations made by any retail seller or applicator of the product. THIS WARRANTY EXCLUDES (1) LABOR OR COST OF LABOR FOR THE APPLICATION OR REMOVAL OF THIS PRODUCT OR ANY OTHER PRODUCT, THE REPAIR OR REPLACEMENT OF ANY SUBSTRATE TO WHICH THE PRODUCT IS APPLIED OR THE APPLICATION OF REPLACEMENT PRODUCT, (2) ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES. OTHER LIMITATIONS APPLY. For the complete terms of the limited warranty, go to www.painttoprotect.com. Some states/provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. To make a warranty claim, write to Technical Service, International Fireproof Technology, Inc., 17528 Von Karman Avenue, Irvine, CA 92614 or email Customer Service at ptp@painttoprotect.com



Flame Seal Products, Inc.
15200 West Drive
Houston, TX 77053 USA

713-668-4291 (office)
713-668-1724 (fax)
www.flameseal.com

Flame Seal-TB™ Fire Retardant Coating Product Data Sheet

Flame Seal-TB is a two-part coating designed for use as a fire retardant coating over Spray Foam Insulation for interior applications.

The product can be applied over most foam brands. Please check certification information for details. The product has been certified as both Thermal and Ignition Barriers.

When *Flame Seal-TB* is exposed to fire or extreme heat, a protective layer of Carbon Foam develops and prevents the fire and heat from transferring to the foam insulation. *Flame Seal-TB* comes in White, “Light” “Medium” and “Dark” Grey and Black.

Typical Analysis

Total Solids	61 – 66%
Weight per Gallon	11.1 – 12.0 lbs
Specific Gravity	1.33– 1.45
pH	2.5 – 3.5

Product contains no PBDE’s (Polybrominated Diphenyl Ethers) or petroleum derivatives.

Application

Flame Seal-TB is for professional use only. It should only be applied by *Flame Seal Products* Certified applicators. Warranty requires completing an applicator training program.

Flame Seal-TB is a two-part system packaged in configurations to allow the cross linker to be mixed into the resin container prior to use. Once *Flame Seal-TB* is well mixed the product can be applied via brush, spray or roller. The product must be given sufficient time to properly cure. Proper care of the environmental conditions must be taken before, during the application and during the curing process. Please review the Applicator training for specifics.

The product should not be top-coated without express written approval by *Flame Seal Products* to ensure the coating complies with certification requirements. Properly applied *Flame Seal-TB* can provide UL-1715 certification.

The product may be used in most SPF applications. However, special precautions should be taken for use in Coolers, Freezers or high humidity environments.

Packaging and Handling

Flame Seal-TB is a two-part product available in several packaging configurations to allow for easy mix and use.

Packaging Configuration:

- 5 gallon kit: one 5 gallon pail containing 4 gallons of Resin and a one gallon bottle of cross linker
- 50 gallon kit: one 55 gallon drum containing 40 gallons of resin and 2 - 5 gallon bottles of cross linker

Refer to MSDS for proper handling.

Storage Conditions

Temperature Range - 40°F to 90°F.

Shelf Life

One year from date of manufacture.

Warranties

Products are guaranteed to perform their fire retardant function as represented by third party tests, if applied according to manufacturer's published instructions. Products may not be diluted or altered prior to use.

*There are no other warranties either expressed or implied since *Flame Seal Products, Inc.* cannot control the actual application of the products. Users must determine usability and suitability for their particular requirements, as well as compatibility with the exact materials to be treated or coated. *Exception: An Expanded Warranty is available for work performed by Certified Applicators.

TECHNICAL DATA SHEET

Material Specification Criteria | Project Submittal Data



An Accella Brand

FOAMSULATE 220

MEDIUM DENSITY · CLOSED CELL FOAM

Foamsulate 220 is a two-component, medium density, one to one by volume spray applied polyurethane foam. To produce Foamsulate 220 requires the use of an “A” component (ISO) and a blended “B” component (RESIN) which contains ZERO ozone depleting blowing agents, catalysts, polyols and fire retarding materials. Foamsulate 220 is an insulation system designed for use in residential, commercial and industrial applications. Use in lieu of more traditional forms of insulating materials such as fiberglass, cellulose or other loose fill products. Typical area’s where spray polyurethane foam is applied are:

**EXTERIOR WALLS · VENTED ATTIC’S · UN-VENTED ATTIC ASSEMBLIES · BETWEEN FLOORS · FOUNDATIONS
CRAWLSPACES · HVAC DUCTS · FLUID TANKS · COLD STORAGE UNITS**

TYPICAL PHYSICAL PROPERTIES:

PROPERTY	FOAMSULATE 220	TEST
R-VALUE	7.0 @ 1”	ASTM C 518
CORE DENSITY	2.0 LB / Cubic Foot	ASTM D 1622
CLOSED CELL CONTENT	> 96%	ASTM D 6226
SOUND TRANSMISSION COEFFICIENT	38	ASTM E 413
WATER VAPOR TRANSMISSION - PERMEANCE	1.49 Perms at 1” 0.92 Perms at 1.5” 0.77 Perms at 2”	ASTM E 96
AIR IMPERMEABLE	< 0.005 (L/s-m ²)	ASTM E 283
NOISE REDUCTION COEFFICIENT	0.10	ASTM C 423
TENSILE STRENGTH (PSI)	58	ASTM D 1623
DIMENSIONAL STABILITY	< .27%	ASTM D 2126
COMPRESSIVE STRENGTH (PSI)	41	ASTM D 1621

BUILDING CODE CERTIFICATIONS / FIRE TEST DATA		
EVALUATION SERVICE REPORT	IAPMO	352
BUILDING TYPES	Approved	I, II, III, IV, V-B: Nonstructural Insulating Material
FLAME SPREAD	ASTM E84	Class I < 10
SMOKE DEVELOPMENT	ASTM E84	Class I < 195
ASTM C 1029	Spray Applied Polyurethane Thermal Insulation	Meets or Exceeds Type II
ASTM E 119	Pass	Non Load-Bearing - 1 Hour Rated - Wall Assembly
NFPA 259	Potential Heat	1883 Btu/ft ² Per Inch Of Thickness
NFPA 285	Pass	Compliant For Use In Building Types: I, II, III, IV, V
UL LISTING	FWFX.R38039	Exterior Wall System Components
UL LISTING	FWFO.EWS0013	System No. EWS0013 Exterior Wall Systems
UL GREENGUARD GOLD	GOLD: UL 2818 - 2013 Gold Standard for Chemical Emissions for Building Materials, Finishes and Furnishings	
NFPA 286	Pass: Can be used without a Code prescribed 15-minute thermal barrier when covered with one of the approved intumescent coatings as shown on page 2.	
NFPA 286 AC377 APPENDIX X	Pass: Complies with the applicable requirements of ICC-ES AC377 Appendix X for use in attics and crawlspaces without a prescriptive ignition barrier.	
UL 1715	Pass: Can be used without a Code prescribed 15-minute thermal barrier when included as a component in tested alternative thermal barrier assemblies. See THERMAL BARRIER on page 2.	
FLORIDA BUILDING CODE	FL 17185: FL Building Code 2010: RULE 61G20-3: Approved for use as supplemental attachment of roof OSB deck to rafters/truss top chords (dimensional lumber) for commercial and residential buildings. Product may be used for Code-plus wind resistance in new construction or enhancing the wind uplift resistance on existing structures.	

FOAMSULATE 220

MEDIUM DENSITY • CLOSED CELL FOAM



GENERAL PROPERTIES: Foamsulate 220 is a 2.0 pcf density closed cell insulating material. Foamsulate 220 is designed for use where insulation systems require superior air barrier characteristics along with the ability to minimize moisture infiltration. Foamsulate 220 has a 7.0 per inch R-value rating while providing structural enhancement due to its semi-rigid nature when cured. When properly installed by a professional application company Foamsulate 220 quickly expands to fill the cracks, crevices, gaps and voids that exist in every structure. In addition Foamsulate 220 will conform to the curves, irregular surfaces and spaces to form a superior thermal envelope around your entire structure.

THERMAL BARRIER: Current International Building Code (IBC) and International Residential Code (IRC) require that spray polyurethane foam be separated from the building interior by a Code prescribed 15-minute thermal barrier or a Code-approved alternative. Gypsum board at a minimum thickness of 1/2" is a Code-prescribed 15-minute thermal barrier. The following products when installed per manufacturer specifications are alternative thermal barrier assemblies containing Foamsulate™ 220:

APPROVED INTUMESCENT COATINGS: NFPA 286

DC315™ manufactured by: International Fireproof Technology, Inc.	Application Rates: 18 Wet Mils – 12 Dry Mils
Flame Seal-TB™ manufactured by: Flame Seal Products, Inc.	Application Rates: 24 Wet Mils – 15 Dry Mils

CLOSED CELL FOAM: UL 1715

Staycell ONE STEP® 255 manufactured by: Preferred Solutions, Inc.	Application Rates: Walls: 1 inch Roofs/Ceilings: ½ inch
Note: Fire testing was conducted separately for installation on walls only or the underside of roofs and ceilings only. PRODUCTS ARE NOT TO BE INSTALLED IN COMBINED WALL AND ROOF/CEILING CONFIGURATIONS.	

IGNITION BARRIER: Foamsulate 220 meets the requirements of ICC-ES AC377 and Appendix X for use in attics and crawlspaces without the use of a prescriptive ignition barrier under the following conditions.

a	Entry is only to service utilities in the attic or crawlspace and no storage is permitted.
b	Attic or crawlspace areas cannot be connected.
c	Air from the attic or crawlspace cannot be circulated to other parts of the building.
d	In accordance with IBC Section 1203.3 or IRC Section R408.1, under floor (crawlspace) ventilation is provided as applicable.
e	In accordance with IBC 1203.2 or IRC Section R806, attic ventilation is provided as applicable.
f	In accordance with 2012 and 2009 IMC (International Mechanical Code®) Section 701, or 2006 IMC Sections 701 and 703, combustion air is provided.
g	The foam plastic insulation is limited to the maximum thickness and density tested.
h	The installed coverage rate of coatings, if part of the insulation system shall be equal or greater than that tested.

VAPOR RETARDER: When installed at a minimum thickness of 1.5" Foamsulate 220 is considered a vapor retarder. Consult local building code officials for specific requirements. Climate zone tables are available in current IBC and IRC publications.

APPLICATION GUIDELINES: Polyurethane foam systems should be processed through commercially available spray equipment designed for that purpose by a qualified professional applicator. Consult the current Accella Polyurethane Systems, LLC application guidelines for Foamsulate 220 prior to installation. It is the responsibility of the professional applicator to thoroughly understand all equipment technical information and safe operating procedures that pertain to a spray polyurethane foam application.

MATERIAL HANDLING: Due to the reactive nature of these components respiratory protection is mandatory. The vapors and liquid aerosols present during application and for a short period thereafter must be considered – and appropriate protective measures taken – to minimize potential risks from overexposure through inhalation, skin, or eye contact. These protective measures include: adequate ventilation, safety training for installers and other workers, use of appropriate personal protective equipment, and a medical surveillance program. It is imperative that the applicator read and become familiar with all available information on proper use and handling of spray polyurethane foam. Additional Information is available at spraypolyurethane.org, polyurethane.org or by contacting the Premium Spray Products Technical Services dept. of Accella Polyurethane Systems, LLC.

PROPER STORAGE OF RAW MATERIALS: Shelf life is twelve (12) months from date of manufacture when stored indoors, in the original unopened containers and between the temperatures of 40° to 80°.

TECHNICAL ASSISTANCE: For additional assistance please contact the Premium Spray Products Technical Services dept. of Accella Polyurethane Systems, LLC. at (770) 607-0755.

DISCLAIMER: To the best of our knowledge, all technical data contained herein is true and accurate as of the date of issuance and subject to change without prior notice. User must contact Accella Polyurethane Systems, LLC to verify correctness before specifying or ordering. We guarantee our products to conform to the quality control standards established by Accella Polyurethane Systems, LLC. We assume no responsibility for coverage, performance or injuries resulting from use. Liability, if any, is limited to replacement of the product. NO OTHER WARRANTY OR GUARANTEE OF ANY KIND IS MADE BY ACCELLA POLYURETHANE SYSTEMS, LLC EXPRESSED OR IMPLIED; STATUTORY, BY OPERATION OF LAW, OR OTHERWISE, INCLUDING MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.



MANUFACTURED BY:
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EMERGENCY NOTIFICATIONS:
CHEMTREC : Material Leaks, Spills
or Fire (800) 424-9300



Printing date 12/14/2015

Reviewed on 02/25/2015

1 Identification

- **Product identifier**
- **Trade name:** Foamsulate™ A-Component
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Accella Polyurethane Systems, LLC
1255 Kennestone Circle, Suite 200
Marietta, GA 30066
USA
www.premiumspray.com
- **Information department:** EH&S Department
- **Emergency telephone number:**
During normal operating hours: (770) 528-9556
ChemTrec: (800) 424-9300

2 Hazard(s) identification

- **Classification of the substance or mixture**



Health hazard

Resp. Sens. 1 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Carc. 2 H351 Suspected of causing cancer.
STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.



Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
STOT SE 3 H335 May cause respiratory irritation.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
diphenylmethanediisocyanate, isomeres and homologues
4,4'-methylenediphenyl diisocyanate
o-(p-isocyanatobenzyl)phenyl isocyanate
- **Hazard statements**
Harmful if inhaled.

(Contd. on page 2)

Trade name: Foamsulate™ A-Component

(Contd. of page 1)

Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

In case of inadequate ventilation wear respiratory protection.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
In case of fire: Use for extinction: CO2, sand, extinguishing powder.
In case of fire: Use for extinction: Water spray.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Store locked up.
Store in a well-ventilated place. Keep container tightly closed.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:

NFPA ratings (scale 0 - 4)



HMIS-ratings (scale 0 - 4)



Other hazards

Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

Trade name: Foamsulate™ A-Component

(Contd. of page 2)

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	30-60%
	Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	
101-68-8	4,4'-methylenediphenyl diisocyanate	15-40%
	Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	
5873-54-1	o-(p-isocyanatobenzyl)phenyl isocyanate	1-5%
	Resp. Sens. 1, H334; Carc. 2, H351; STOT RE 2, H373; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	

4 First-aid measures

- **Description of first aid measures**
- **General information:**
Symptoms of exposure may occur after several hours; therefore medical observation for at least 48 hours after exposure.
First Aid responders should pay attention to self-protection and use the recommended protective clothing. If potential for exposure exists refer to Section 8 for specific personal protective equipment.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
If breathing is difficult, oxygen should be administered by qualified personnel.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
Get medical attention if symptoms occur.
Wash clothing before reuse.
Clean shoes thoroughly before reuse.
Suitable emergency safety shower should be immediately available.
- **After eye contact:**
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
Do not induce vomiting; immediately call for medical help.
Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person.
- **Information for doctor:**
Symptomatic treatment and supportive therapy as indicated. Following severe exposure the patient should be kept under medical review for at least 48 hours.
- **Most important symptoms and effects, both acute and delayed**
Eye Contact: Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation: Adverse symptoms may include: Respiratory tract irritation, coughing, wheezing and breathing difficulties, asthma.
Skin Contact: Adverse symptoms may include the following: irritation, redness.
Ingestion: No specific data

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Trade name: Foamsulate™ A-Component

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- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
Use fire fighting measures that suit the environment.
ABC powder
Carbon dioxide
- **For safety reasons unsuitable extinguishing agents:**
Unsuitable extinguishing media: Water may be used if no other available and then in copious quantities. Reaction between water and hot isocyanate may be vigorous. Prevent washings from entering water courses, keep fire exposed containers cool by spraying with water.
- **Special hazards arising from the substance or mixture**
In a fire or if heated, a pressure increase will occur and the container may burst.
Combustion products may include: Carbon monoxide, carbon dioxide, nitrogen oxides, hydrocarbons and HCN.
- **Advice for firefighters**
Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Stay up wind and keep out of low areas where gases (fumes) can accumulate.
- **Protective equipment:**
Mouth respiratory protective device.
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. PVC boots, gloves, safety helmet and protective clothing should be worn.
Wear full protective suit.
- **Additional information**
Due to reaction of water producing CO₂-gas, a hazardous build-up of pressure could result if contaminated containers are re-sealed. Containers may burst if overheated.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).
- **Environmental precautions:**
Prevent from entering into soil or ditches. Inform the relevant authorities if the product has caused environmental pollution.
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with materials such as: Dirt, Vermiculite, Sand, Clay.
Ensure adequate ventilation.
Contain spilled material if possible. Do NOT use absorbent materials such as: Cement powder (Note: may generate heat). Collect in suitable and properly label open containers. Do not place in sealed containers. Suitable containers include: Metal drums, Plastic drums, Polylined fiber pacs. Wash spill site with large quantities of water. Attempt to neutralize by adding suitable decontaminant solution: Formulation 1: sodium carbonate 5 - 10%; liquid detergent 0.2 - 2%; water to make up to 100%, OR Formulation 2: concentrated ammonia solution 3- 8%; liquid detergent 0.2 -2%; water to make up to 100%. If ammonia is used, use good

(Contd. on page 5)

Trade name: Foamsulate™ A-Component

(Contd. of page 4)

ventilation to prevent vapor exposure. See Section 13, for additional information.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

· **Handling:**

· **Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace.

Avoid contact with eyes and prolonged or repeated contact with skin.

Wash thoroughly after handling.

· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:**

Store in dry place. Protect from atmospheric moisture. Do not store product contaminated with water to prevent potential hazardous reaction

· **Further information about storage conditions:**

Keep receptacle tightly sealed.

Storage Period: 12 months

Storage Temp: 15 -35 °C

· **Specific end use(s)** See the technical data sheet on this product for further information.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

101-68-8 4,4'-methylenediphenyl diisocyanate

PEL Ceiling limit value: 0.2 mg/m³, 0.02 ppm

REL Long-term value: 0.05 mg/m³, 0.005 ppm
Ceiling limit value: 0.2* mg/m³, 0.02* ppm
*10-min

TLV Long-term value: 0.051 mg/m³, 0.005 ppm

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

Wash contaminated clothing before reuse.

Ensure that eyewash stations and safety showers are close to the workstation area.

(Contd. on page 6)

Trade name: Foamsulate™ A-Component

(Contd. of page 5)

· **Breathing equipment:**

In case of brief exposure at low atmospheric levels use an approved air-purifying respiratory equipped with an organic vapor sorbent and a particle filter. In case of intensive or longer exposure use a positive pressure air-supplying respirator (air line or self-contained breathing apparatus).

· **Protection of hands:**



Protective gloves

The workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

· **Material of gloves**

Use chemical resistant gloves classified under Standard EN374: Protective gloves against chemicals and micro-organisms. Examples of preferred glove barrier materials include: Butyl rubber, Polyethylene, EVAL, Neoprene, Nitrile, Viton. When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher is recommended.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed chemical goggles consistent with EN 166 or equivalent. Wear a face-shield which allows use of chemical goggles, or wear full-face respirator to protect face and eyes when there is any likelihood of splashes.

· **Body protection:**

Personal protective clothing for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Fluid
· Color:	According to product specification
· Odor:	Characteristic
· Odor threshold:	Not determined.

· **pH-value:** Not determined.

· **Change in condition**

· Melting point/Melting range:	Undetermined.
· Boiling point/Boiling range:	Undetermined.

· **Flash point:** 218 °C (424 °F)

· **Flammability (solid, gaseous):** Not applicable.

· **Ignition temperature:** 400 °C (752 °F)

· **Decomposition temperature:** Not determined.

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Trade name: Foamsulate™ A-Component

(Contd. of page 6)

· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	0.4 Vol %
Upper:	Not determined.
· Vapor pressure:	Not determined.
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

· **Reactivity**

Diisocyanates react with many materials and the rate of reaction increases with temperature as well as increased contact; these reactions can be violent. Contact is increased by stirring or if the other material mixes with the diisocyanate. Diisocyanates are not soluble in water and sink to the bottom, but react slowly at the interface. The reaction forms carbon dioxide gas and a layer of solid polyurea. Reaction with water will generate carbon dioxide and heat.

· **Chemical stability** This product is stable at recommended storage conditions (See Section 7).

· **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.

· **Possibility of hazardous reactions**

Can occur. Exposure to elevated temperatures can cause product to decompose and generate gas. This can cause pressure build-up and/or rupturing of closed containers. Polymerization can be catalyzed by: Strong bases. Water.

· **Conditions to avoid**

Exposure to elevated temperatures can cause product to decompose. Generation of gas during decomposition can cause pressure in closed systems. Pressure build-up can be rapid. Avoid moisture. Material reacts slowly with water, releasing carbon dioxide which can cause pressure buildup and rupture of closed containers. Elevated temperatures accelerate this reaction.

· **Incompatible materials:** Water, alcohols, amines, bases and acids

· **Hazardous decomposition products:**

Combustion products may include: carbon oxides (CO, CO₂) nitrogen oxides (NO, NO₂, etc.) hydrocarbons and HCN.

Trade name: **Foamsulate™ A-Component**

(Contd. of page 7)

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

Oral	LD50	>10000 mg/kg (rat)
Dermal	LD50	>9400 mg/kg (rabbit)
Inhalative	LC50/4 h	0.49 mg/l (rat)

101-68-8 4,4'-methylenediphenyl diisocyanate

Oral	LD50	>10000 mg/kg (rat)
Dermal	LD50	>9400 mg/kg (rabbit)
Inhalative	LC50/4 h	0.49 mg/l (rat)

· **Primary irritant effect:**

· **on the skin:**

Irritant to skin and mucous membranes.

Irritating effect.

· **on the eye:** Irritating effect.

· **Sensitization:**

Sensitization possible through inhalation.

Sensitization possible through skin contact.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

May cause damage to organs through prolonged or repeated exposure if inhaled. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues
101-68-8	4,4'-methylenediphenyl diisocyanate

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:**

9016-87-9 diphenylmethanediisocyanate, isomeres and homologues

EC50 (static)	>1000 mg/kg (daphnia)
---------------	-----------------------

101-68-8 4,4'-methylenediphenyl diisocyanate

EC50 (static)	>1000 mg/kg (daphnia)
---------------	-----------------------

· **Persistence and degradability** No further relevant information available.

(Contd. on page 9)

Trade name: Foamsulate™ A-Component

(Contd. of page 8)

- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT	UN3082
· ADN, IMDG, IATA	not regulated
· UN proper shipping name	
· DOT	Environmentally hazardous substances, liquid, n.o.s. (Methylene Diphenyl Diisocyanate)
· ADN, IMDG, IATA	not regulated
· Transport hazard class(es)	
· DOT	DOT Non-Bulk: Not Regulated
· Class	9 Miscellaneous dangerous substances and articles
· Label	9
· ADN/R Class:	not regulated
· Packing group	
· DOT	III
· IMDG, IATA	not regulated
· Environmental hazards:	
· Marine pollutant:	No

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Trade name: Foamsulate™ A-Component

(Contd. of page 9)

· **Special precautions for user** *Not applicable.*

· **Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** *Not applicable.*

· **UN "Model Regulation":** *not regulated*

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Clean Air Act**

101-68-8	4,4'-methylenediphenyl diisocyanate	15-40%
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· **Clean Water Act**

None of the ingredients is listed.

· **Sara**

· **SARA 302/304 Extremely Hazardous Substance**

None of the ingredients is listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues
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101-68-8	4,4'-methylenediphenyl diisocyanate
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· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Massachusetts Right To Know**

All ingredients are listed.

· **New Jersey Right To Know**

All ingredients are listed.

· **Pennsylvania Right To Know**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

9016-87-9	diphenylmethanediisocyanate, isomeres and homologues	CBD
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101-68-8	4,4'-methylenediphenyl diisocyanate	D, CBD
· TLV (Threshold Limit Value established by ACGIH)		
None of the ingredients is listed.		
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
-		

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS07 GHS08

- **Signal word** Danger

- **Hazard-determining components of labeling:**

diphenylmethanediisocyanate, isomeres and homologues
4,4'-methylenediphenyl diisocyanate
o-(p-isocyanatobenzyl)phenyl isocyanate

- **Hazard statements**

Harmful if inhaled.
Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause an allergic skin reaction.
Suspected of causing cancer.
May cause respiratory irritation.
May cause damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

In case of inadequate ventilation wear respiratory protection.
Avoid breathing dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection.
Wash thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
Call a POISON CENTER/doctor if you feel unwell.
Wash contaminated clothing before reuse.
IF exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
In case of fire: Use for extinction: CO2, sand, extinguishing powder.
In case of fire: Use for extinction: Water spray.
IF ON SKIN: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.

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Printing date 12/14/2015

Reviewed on 02/25/2015

Trade name: Foamsulate™ A-Component

(Contd. of page 11)

Store locked up.

Store in a well-ventilated place. Keep container tightly closed.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

Accella Polyurethane Systems, LLC urges each customer of recipient of this (M)SDS to study it carefully and consult

appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown on this (M)SDS. However, no warranty, express or implied is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his/her activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M) SDS, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

· **Recommended restriction of use FOR PROFESSIONAL USE ONLY**

· **Department issuing SDS:** Environmental Health & Safety Department.

· **Contact:** M. Phillips

· **Date of preparation / last revision** 12/14/2015 / -

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Acute Tox. 4: Acute toxicity, Hazard Category 4

Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A

Resp. Sens. 1: Sensitisation - Respirat., Hazard Category 1

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Carc. 2: Carcinogenicity, Hazard Category 2

STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2

Hollis School District
Monthly Enrollment Breakout
October 2017

Grade	Class size Per District Policy	Number of classes	NESDEC Projections 17/18 SY	Number of students (9/25/2017)	Change from last report	Actual class Enrollments
Pre – K 3 year olds		1		9	0	9
Pre – K 4 year olds		1	22	11	0	11
Kindergarten		4	51	65	0	15, 16, 17, 17
Grade 1	18	5	67	80	-1	15, 16, 16, 16, 17
Grade 2	18	5	77	89	+1	17, 18, 18, 18, 18
Grade 3	20	5	85	90	0	17, 18, 18, 18,19
HPS Totals		21 classes		344	0	
Grade 4	23	5	101	101	-1	19, 20, 20, 21, 21
Grade 5	23	6	122	123	0	20, 20, 20, 21, 21, 21
Grade 6	23	5	103	98	0	19, 19, 20, 20, 20
HUES Totals		16 classes		322		
HSD Totals		37 classes	628	666		

* denotes class sizes over policy expectations

Enrollment History:

School Year	HPS September Starting Enrollment Numbers	HUES September Starting Enrollment Numbers
2017	344	323
2016	337	319
2015	345	295
2014	352	291
2013	358	292
2012	340	294
2011	340	297

Hollis School District
Administrative Report
October 2017

Calendar, Events, Programs

- October - HPS/HUES - Parent Conferences to begin
- October - HUES - Fire Prevention Lessons - HFD Volunteers
- October 9, 2017 - HUES and HPS - No School - Columbus Day
- October 10, 2017 - HUES "One Book One School" Kick - Off assembly
- October 21, 2017 - Hollis Fun Fair and Haunted Hours at HUES
- October 27, 2017 - Trebuchet Day collaboration with HBHS

Enrollment for 2017/2018:

PK – 3's: 9

PK – 4's: 11

Grade K: 65

Grade 1: 80

Grade 2: 89

Grade 3: 90

Grade 4: 101

Grade 5: 123

Grade 6: 98

Building & Grounds:

- HUES:
 - Solar Panel Installation has begun.
 - Routine maintenance and daily cleaning continue
- HPS -
 - Tick treatment completed on the HPS playground.
 - Solar Panel Installation has begun.
 - Routine maintenance and daily cleaning continue.

Staffing & Students:

- HPS - First All School Town Meeting Hosted by Mrs. Somorrostro's class was held on Tuesday, September 26th. Students in the class taught the school the 3 School Rules - Respect Yourself, Respect Others, and Respect Property.
- HPS - The week of October 23rd, all students and staff will participate in Math Week fun activities, assemblies, and school wide breakout box activities!
- HUES - NECAP science results have been released from last year. 64% of this cohort are proficient or above. Science NECAP data can not be tracked year to year to determine how the effectiveness of our science curriculum and instruction. This NECAP Science assessment was also based on old standards that we are no longer teaching as this will be our third year teaching the NGSS standards. Something to look for from this data is how are our students doing compared to their state peers. As you can see from the graph below - we are outperforming other 4th graders in all areas except in the area of inquiry.

Reflect and Refine

Hollis School District
2017 - 2018 School Year

The Hollis Administration Team

Nicole Tomaselli - Curriculum and Assessment Administrator

Colleen Micavich - Special Education Administrator

Candi Fowler - HUES Principal

Paula Izbicki - HPS Principal

The Vision:

The vision of **Hollis School District** staff is to work collaboratively to ensure (encourage, nurture, advance, promote, stimulate) academic growth and develop a passion for community, learning and the life skills for: (1) independent learning, (2) social, and (3) emotional success in students.

Strategic Plan:

- Goal 1:** SAU 41 will strive to continuously improve each student's level of achievement and growth.
- Goal 2:** SAU 41 will recruit, recognize, and develop the most effective personnel.
- Goal 3:** SAU 41 will utilize appropriate technology to enhance student achievement and improve operational efficiency.
- Goal 4:** SAU 41 will develop and implement consistent practices for teaching grade-appropriate 21st century learning skills.
- Goal 5:** SAU 41 will manage and keep in good repair its physical assets in order to optimize student learning.

Summer Improvements: Strategic Goal 5

At HPS and HUES:

Nurse's Office, painting, new intercom system, sound system in the cafeteria, cleaning, landscaping, speed bumps

Landscaping (trees, bushes, mulch); deep cleaning of rooms and furniture, painting inside and outside, waxing and restoring floors

Collaborating and coordinating with all construction work/workers

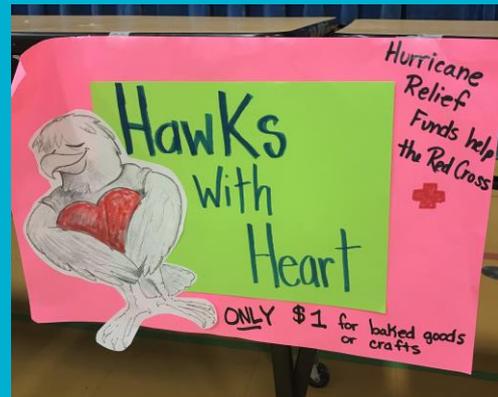


New Staff Members: Strategic Goal 2

- Kelsey Simard - Instructional Paraprofessional (HPS)
- Paula Grieb - Spanish Teacher (HUES and HPS)
- Heidi Moore - Case Manager (HUES)
- Tammy Lucke - Paraeducator (HUES)
- Heather Niebel - Paraeducator (HUES)

Goal Statement: Strategic Goal 4

Teaching: Teachers will develop and implement best practices to grow critical thinking learning opportunities for students as evidenced by teacher goals, observational walkthroughs, lessons, and performance tasks.



Goal Statement: Strategic Goal 1

Leadership: To build educational teams who value growth mindset, collaboration, communication, and think critically to curate personalized learning opportunities through Professional Learning Communities (PLC).

The 5 W's of PLC's:

WHO: Grade Level Teachers, Cross District Specialists, Reading Teams, Math Teams, Wellness

WHAT: Focus on student work, data, samples, to change practice to meet individual learners needs

WHEN: Weekly 45 minute meetings

WHERE: Teacher's area in learning commons, makerspace, in the classroom

WHY: PLC's are best practice, they focus on students, and support teacher growth

HOW: The schedule, we value it so we provide the time!

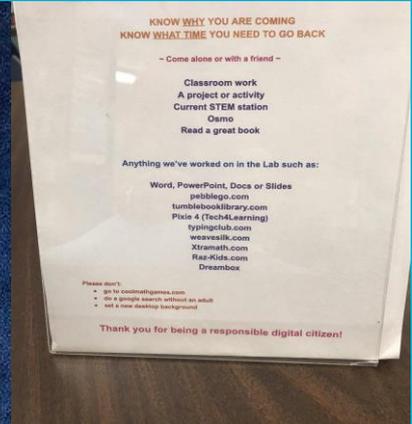
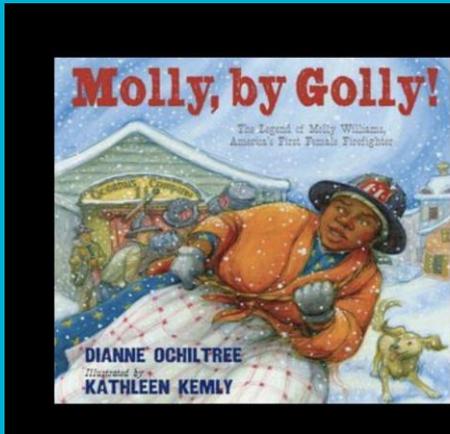
What is the impact of PLC's for staff?



Collaboration, Teamwork, Student Focus, Growth Mindset, Culture, Ability to take Risk!

What is the impact of PLC's for students?

Learning customized to meet you where you are and activities to support your individual growth and passion!



Goal Statement: Strategic Goals 1, 3, 4

Academic: Teachers will develop, refine, and utilize responsive lesson planning practices to personalize/differentiate learning to meet the needs of all learners.

What is responsive lesson planning?

Using data (observations, common assessments, district assessments, and classroom performance) to determine what a child is ready to learn.

Determining that students understand to the level and depth the grade level standards then differentiating to ensure learning and growth

Working on developing more project based real -life experiences for students to show what they know

Goal Statement: Strategic Goals 1, 4

Learning: Work with Department of Education resources to begin building and embedding social/emotional programming that will continue to focus on developing students abilities to be: problem-solvers, resilient, independent, tolerant, as well as to be able to persevere through difficulty/failure, have an optimistic view and to have a growth mindset as learners.

Special Education Overview

Special Education DOE Compliance Review- Fall of 2017

Strategic focus on aligning special education between buildings

Implementation of revised NH special education regulations & resulting paperwork

Training of case managers regarding process/procedures

Continued emphasis on early intervention and increased emphasis on early identification of students with special education disabilities

Looking Forward: Strategic Goals 1-5

★HSTEP

★Growing Support for our diverse learners to meet the needs of all students - math, environmental science, learning commons

★Adding in technology to support learning

★BYOD at HUES

★One Book One School at HUES

★SOAR program at HUES

★Continued focus on the whole student - behaviorally, socially and

Hopes: Strategic Goals 1-5

- HUES to become a Professional Learning Model School for other schools across the country through our use of data to drive instructional practices
- Continue to collaborate with both buildings (collaboration committee) to align practices and vision prek - 6
- Continue to work together with the HSTEP committee
- Reach out to the community for more collaboration - PTA talks, administrative coffee talks, learning commons visit
- Provide valuable PD time for staff for continued growth and collaboration

HOLLIS SCHOOL BOARD POLICY COMMITTEE

To: Andy Corey
From: Hollis School Board Policy Committee
RE: Policy Recommendations
Date: September 26, 2017

The HSB Policy Committee makes the following recommendations for the October 4, 2017 School Board meeting:

Present for a *Third Reading*:

1. JLJ: Life Threatening Allergies
2. ACA: Freedom From Sexual Harassment
3. BDA: Organization of the School Board
4. BDD: School Board Superintendent Division of Responsibilities
5. BEDG-R: Access to Public Minutes and Records
6. CCB: Line and Staff Relations
7. CHA: Development of Regulations and Handbooks
8. CM: School District Annual Report
9. DBI: Budget Implementation
10. GCCBC: Family and Medical Leave Act
11. GCEB: Professional Staff Recruiting and Hiring
12. GCR: Non-School Employment By Professional Staff Members
13. GDF: Support Staff Hiring
14. IC: School Year
15. JG: Assignment of Students to Classes
16. JICH: Drug and Alcohol Use By Students

Present for a *Second Reading*:

1. EFAA: Meal Payment Policy

LIFE-THREATENING ALLERGIES

The Hollis School District is committed to ensuring that all parties to the education process work together collaboratively and respectfully to maintain the health and safety of children who have life-threatening allergies in ways that are developmentally appropriate, promote self-advocacy and competence in self-care, and provide appropriate educational opportunities.

Recognizing epinephrine as the first line of treatment for anaphylaxis, Hollis Primary School and Hollis Upper Elementary School will maintain an emergency supply of epinephrine to be used for anyone experiencing anaphylaxis in the school setting as recommended by the federal School Access to Emergency Epinephrine Act and New Hampshire Senate Bill 25-FN signed into law May 3, 2016.

The health, social normalcy and safety needs of student(s) will be balanced along with the education, health and safety needs of all students.

Legal Reference:

RSA [200:29](#) School Health Services

RSA [318:42](#) Regulation of Pharmacies

RSA [200:45](#) Pupil Use of Epinephrine Auto-Injectors

1st Reading: November 8, 2006

2nd Reading: February 12, 2007

Approved: February 12, 2007

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

Category P

FREEDOM FROM SEXUAL HARASSMENT

POLICY:

It is the policy of the Hollis School Board that all employees and students in the School District should be able to work and study in an environment that is free of sexual discrimination and sexual harassment.

PROCEDURE:

Procedures for prompt corrective action through mediation and persuasion and, when necessary, through discipline consistent with due process are considered to be an essential part of the District's effort to eliminate sexual harassment in all educational environments.

Building Principals, Assistant Principals and Supervisors are required to take appropriate steps to distribute this policy statement and to inform employees and students of procedures for lodging complaints. Any employee or student having a complaint of sexual harassment should notify the Building Principal.

At any time, an employee or student and/or his representative may contact the Building Principal, Superintendent of Schools or a School Board member for counseling or advice.

Individuals shall not be reprimanded or discriminated against in any way for initiating an inquiry or complaint. The rights of an individual against whom a complaint is brought will also be protected.

The Freedom from Sexual Harassment Policy, formal and informal complaint procedures and names of complaint manager(s) shall be widely disseminated throughout the District's schools.

SANCTIONS:

Sexual harassment will be treated as a major disciplinary offense so that, depending upon the circumstances and the degree of harassment, the offender(s) might be disciplined with a suspension subject to discharge.

Appeal Board

The Hollis School Board, upon receipt of notification of the grievance officer or complaint manager, shall appoint a five-member appeal board. One member shall be a parent or guardian of a student of the district; one member shall be a teacher employed by the District;

one member shall be selected from the School Board; one member shall be selected from the public; and one member shall be a principal from a District school. In the event any member would be disqualified to act as a juror in any matter referred to it the Board shall appoint an alternate from the same category as the disqualified member.

The Appeal Board shall hold an informal hearing to hear the complaint within 30 days of the receipt of the matter. Within 10 days after the hearing, the Appeal Board shall make its recommendations to the School Board. Such recommendations shall be in writing with copies provided to all parties involved in the appeal procedure.

The School Board may affirm, modify or reject the report of the Appeal Board no later than its second regular meeting after the receipt of the Appeal Board's report. The School Board's determination shall be final.

Any inquiries, complaints, grievances, and other communication relative to the policy and to Title IX and the applicable federal regulations are to be made to the Title IX Coordinator and/or the Superintendent of Schools.

The following person has been designated to handle inquiries regarding Title IX.

Director of Student Services or his/her designee
SAU #41
4 Lund Lane
Hollis, NH 03049 (603) 324-5999

The following person has been designated to handle inquiries regarding the nondiscrimination policies:

Superintendent of Schools
SAU #41
4 Lund Lane
Hollis, NH 03049 (465-7118)

Students and Employees May Use the District's Internal Grievance Procedure, or May Report Their Grievances Directly to the Director of the Regional Office for Civil Rights, U.S. Dept. HHS, Govt. Center, JFK Federal Building, Room 1875, Boston, MA 02203 or to the NH Commission for Human Rights, 2 Chennel Drive, Concord, NH 03301.

Adopted: November 17, 2004

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

ORGANIZATION OF THE SCHOOL BOARD

An organizational meeting of the Board will be held within one month of the close of the Annual School District Meeting in order to elect Board officers. The organizational meeting shall be called to order by the Superintendent of Schools or designee, who shall preside until the election of a Chairperson.

The election of the Chairperson should be based on qualifications for the position. Other methods such as rotation should be discouraged.

All officers of the board shall hold office for a term of one year or until their successors are elected and have been qualified.

Whenever there is a vacancy in the office of the chair or vice-chair, the Board, at its discretion, shall elect a new officer to fill the vacancy during the unexpired term of office.

Nominations shall be made and seconded by members of the School Board. Election will be accomplished via an open vote of the Board, conducted by the Superintendent or designee. A majority vote of the members of the entire Board shall be required for election.

Legal Reference:

RSA [91-A:2](#)

Adopted: May 13, 2004

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

**SCHOOL BOARD
SUPERINTENDENT DIVISION OF RESPONSIBILITIES**

It is the policy of the School Board that the responsibilities of the School Board and the Superintendent be clearly delineated.

1. The School Board shall be responsible to participate in the selection of the Superintendent of Schools and support him or her in the discharge of his or her duties. The Superintendent shall be considered the chief executive officer of the district. All individuals employed by the district are responsible directly or indirectly to the Superintendent of Schools.
2. The School Board shall adopt policies, rules and regulations for the operation of the schools. The Superintendent shall enforce all policies, rules and regulations adopted by the Board.
3. The School Board shall approve an annual budget. The Superintendent shall prepare and submit to the Board a proposed annual budget for consideration through working collaboratively with the school administrators and the SAU professional staff.
4. The School Board shall consider and approve vouchers and payrolls. The Superintendent shall have power to approve and direct all purchases and expenditures (within the limits of major appropriations approved by the Board).
5. The School Board shall elect all teachers and principals upon the nomination of the Superintendent and set policies for the appointment of other employees by the Superintendent. The Superintendent shall nominate professional staff and administrators for Board approval and appoint all other employees.
6. The School Board shall negotiate salary schedules and other benefits and determine other personnel policies. The Superintendent shall assist in negotiations of staff contracts, formulate and recommend personnel policies and be responsible for assignment of all personnel. The Superintendent shall formulate and administer means of evaluating staff members and report findings to the Board.
7. The School Board shall require and discuss reports of the Superintendent concerning the progress of the schools in terms of achievement of pupils, teachers and supervisors. The Superintendent shall formulate and administer a program of supervision for the schools.

Duties and responsibilities may be delegated, but the Superintendent has final responsibility for actions of all school personnel.

8. The School Board shall require and consider reports of business transacted or pending and of the financial status of the system. The Superintendent shall work with the SAU Business Administrator to prepare monthly reports upon status of the budget, prepare an annual report on the operation of the school system and such other reports requested by the Board.
9. The School Board shall consider recommendations by the Superintendent for changes to the scope of educational activities. The Superintendent shall provide professional leadership for the educational programs of the schools and keep the Board continually informed on the progress and condition of the schools.
10. The School Board shall consider recommendations for capital outlays, adopt plans for such improvements and determine the means for financing them. The Superintendent shall develop plans for maintenance, improvements, or expansion of buildings and site facilities needed to provide properly for an adequate educational program.
11. The School Board shall balance the needs of the schools, the desires of the citizens of the district and State and Federal laws and regulations, based on the available financial resources. The Superintendent shall plan and implement means of keeping the community informed about school matters, and serve as a representative of the schools before the public.
12. The School Board shall act as a court of appeal for school employees and patrons in cases which may be appealed from the decision of the Superintendent. The Superintendent shall render decisions in line with federal and state laws and regulations and Board policy, and hear grievances brought by employees in accordance with negotiated procedures.
13. The School Board shall visit schools as desired and shall receive reports from the Superintendent of personal observations. The Superintendent shall visit schools regularly to personally observe progress of programs in schools.

Adopted: May 13, 2004

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

BEDG-R

Access to Public Minutes and Records

1. These procedures will apply to all requests for access to public records and minutes received by the administrative offices of the school district.
2. The Board encourages members of the public to make their requests for access to public records in writing and to include a specific description of the desired documents. All steps taken to comply with such requests will be documented in writing and will include a specific description of all documents that were made available.
3. Public documents requested under the Right-to-Know Law must be made available within five (5) business days. In the event a reply will take longer than five (5) days, a letter will be sent to the individual requesting the documents acknowledging receipt of the request and either estimating when a substantive reply will be available or explaining why such documents are unavailable.
4. Access to public records will ordinarily be afforded by providing photocopies of the requested materials. In some instances alternate methods -- such as allowing personal review of a particularly voluminous file -- may be more appropriate.
5. The school district will charge a basic fee of \$.25 per page for producing photocopies of records.
6. Records must be reviewed in their entirety by either the Superintendent or building principal before they are released, in order to ensure that no confidential or exempted information is disclosed.
7. Records exempted from disclosure requirements include: personnel records; student records; privileged documents (e.g. lawyer-client communication); records pertaining to litigation; collective bargaining; real estate negotiations; records containing certain types of confidential commercial or financial information; and other such documents as defined in RSA 91-A:5.
8. It is possible that only a portion of the information contained in a district record will be subject to public access under the Right-to-Know Law. In such cases the district will make a reasonable effort to provide access to the public portions of the record. For instance, a redacted photocopy of the document may be provided.

9. This procedure shall be effective immediately and shall continue in force until otherwise amended or repealed.

1st Reading: December 14, 2011
2nd Reading: January 11, 2012
3rd Reading: August 8, 2012
Adopted: August 8, 2012

1st Reading: August 2, 2017
2nd Reading: September 6, 2017

CCB

Category R

LINE AND STAFF RELATIONS

General Operations

The following principles shall govern the administrative operation of the Hollis School District.

- 1) Each school shall be encouraged to develop appropriate educational programs for the students attending that school, consistent with Hollis School Board policy, state law, and State Board regulations.
- 2) The Superintendent shall have specific responsibility for overseeing the pattern and sequence of educational experiences provided for children from kindergarten through grade 6.
- 3) Responsibility shall flow simply and clearly from the teachers, principals and the Superintendent to the School Board.
- 4) Each member of the staff shall be informed to whom s/he is responsible.
- 5) Whenever feasible, each member of the staff shall be made responsible to only one immediate supervisor for any one function.
- 6) Each staff member shall be told to whom s/he can go to for help in working out his/her own functions in the District.

Line of Responsibility

Each employee in the District shall be responsible to the Board through the Superintendent and School Principal.

All personnel shall refer matters requiring administrative action to the administrator immediately in charge of the area in which the problem arises.

Administrators shall refer such matters to the next higher authority when necessary.

1st Reading: May 12, 2005

2nd Reading: August 4, 2005

Adopted: March 9, 2006

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

CHA

Category R

DEVELOPMENT OF REGULATIONS AND HANDBOOKS

The Hollis School Board shall delegate to the Superintendent the function of implementing appropriate actions to carry out Board policy.

When a written procedure is developed, the Superintendent shall submit it to the Hollis School Board as an information item. Such procedures need not be approved by the Board, therefore they may be revised when it appears they are not consistent with Board policy. On controversial topics, the Superintendent may request prior Board approval.

In the development of rules, regulations, and procedures for the operation of the Hollis School District, the Superintendent may include at the planning stage those employees who will be affected by such provisions.

Principals and other administrators are responsible for the development of employee and student handbooks.

The contents of all handbooks must conform to Hollis School District-wide policies and regulations.

Handbooks are available in school offices and on the district's website.

1st Reading: May 12, 2005
2nd Reading: August 4, 2005
Adopted: March 9, 2006

1st Reading: August 2, 2017
2nd Reading: September 6, 2017

SCHOOL DISTRICT ANNUAL REPORT

An annual report covering the diversified activities of the Hollis School District and the administration's recommendations for its improvement shall be prepared by the Superintendent and presented to the Hollis School Board each school year. The report shall be made available to the public and used as one means for informing parents and citizens, the State Board of Education, and other school districts in the area of the programs and conditions of the Schools.

Legal References:

RSA [193-E:3.I,\(a\),\(b\)](#), Delivery of an Equitable Education

RSA [193-H:4](#), School Performance and Accountability

1st Reading: May 12, 2005

2nd Reading: August 4, 2005

Adopted: March 9, 2006

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

DBI

Category R

BUDGET IMPLEMENTATION

The Superintendent will establish procedures for budget implementation, control, and reporting.

Legal References:

RSA [32:3](#), municipal Budget Law: Definitions

RSA [32:10](#), Transfer of Appropriations

NH Code of Administrative Rules, Section Ed. [302:02 \(e\) \(j\) \(o\)](#), Substantive Duties of the Superintendent

1st Reading: May 12, 2005

2nd Reading: August 4, 2005

Adopted: March 9, 2006

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

FAMILY AND MEDICAL LEAVE ACT

Consistent with the federal Family and Medical Leave Act of 1993, the Hollis School Board recognizes that eligible employees have access to unpaid family and medical leave for up to twelve (12) weeks during any twelve (12) month period. The intent of this policy is to summarize the Act as it applies to eligible employees of the School District. An employee should consult the regulations which implement the Act for more specific definitions and criteria for use. It is not the intent of this Policy to provide additional, or different, provisions than those specified in the Act and its implementing regulations.

To be eligible for family or medical leave, an employee must have been employed for at least twelve (12) months, have worked at least 1,250 hours during the prior twelve months, and be employed at a work-site where at least 50 employees are employed by the District within a 75-mile radius of that work-site.

Family leave shall be provided when a son or daughter is born to the employee or when one is placed with the employee for adoption or foster care. Medical leave shall be provided for the serious health condition of the employee, or in order for the employee to take care of a spouse, child or parent who has a serious health condition rendering him/her unable to perform the functions of his/her job.

An employee may elect, or the District may require, an employee to use accrued paid vacation, personal, or family leave for purposes of family leave. An employee may elect, or the District may require, an employee to use accrued vacation, personal, or medical/sick leave for purposes of medical leave.

The employee shall notify the District of his/her request for leave, if foreseeable, at least thirty (30) days prior to the date when the leave is to begin. If such leave is not foreseeable, then the employee shall give such notice as is practical. The District may require a certification from a health care provider if medical leave is requested. When an employee returns following a leave, he/she must be returned to the same or equivalent position of employment. The Superintendent, or his/her designee, may reassign a teacher consistent with the teacher's agreement, to a different grade level, building, or other assignment, consistent with the employee's certification.

The District shall post a notice prepared or approved by the Secretary of Labor stating the pertinent provisions of the Family and Medical Leave Act, including information concerning the enforcement of the Act.

Legal Reference:

Public Law 103-3, The Family and Medical Leave Act of 1993
29 C.F.R. Part 825

1st Reading: July 12, 2005

2nd Reading: October 20, 2005

Adopted: March 9, 2006

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

PROFESSIONAL STAFF RECRUITING AND HIRING

The Board desires the Superintendent to develop and maintain a recruitment program designed to attract and hold the best possible personnel.

It is the responsibility of the Superintendent, with the assistance of other administrators, to determine the personnel needs of the district in general and of each individual school and to locate suitable candidates to recommend to the Board for employment. The search for good teachers and other professional personnel shall extend to a wide variety of educational institutions and geographical areas. It shall take into consideration the diverse characteristics of the school system and the need for staff members of various backgrounds.

Recruitment procedures shall not overlook the talents and potential of individuals already employed in the district schools and all vacant positions are posted in accordance with negotiated employee agreements. Any present employee of the Board may apply for a position for which he or she is licensed, highly qualified, and meets other stated requirements.

Prior to hiring any person, in accordance with state law the district shall conduct background checks regarding the applicant's fitness for employment.

There shall be no discrimination in the hiring process on the basis of race, color, sex, religion, national background, age, marital status, disability or handicap.

All candidates shall be considered on the basis of their merits, qualifications and the needs of the school district. The Board directs that recruitment procedures will give preference to candidates who meet the State certification requirements.

All interviewing and selection procedures shall ensure that the administrator directly responsible for the work of a staff member has an opportunity to aid in the selection. However, the final selection for nomination shall be made only by the Superintendent.

Appointment of candidates

In accordance with RSA [189:39](#), the Superintendent will present at least 15 days prior to April 15th, a listing of teacher nominations for the coming year.

Legal Reference:

RSA [189](#):13-a, School Employee and Volunteer Background Investigations

RSA [189](#):14, Liability of District

RSA [189](#):14-a, Failure to be Renominated or Re-elected

RSA [189](#):14-b, Review by State Board

RSA [189](#):39, How Chosen

1st Reading: July 12, 2005

2nd Reading: October 20, 2005

Adopted: March 9, 2006

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

GCR

Category R

NON-SCHOOL EMPLOYMENT BY PROFESSIONAL STAFF MEMBERS

When a person is hired on a regular, full-time basis, the Hollis School Board considers that it has given him/her full-time employment. It expects employees to give the responsibilities of their positions in the Hollis School District precedence over any type of outside part-time work.

An employee will not perform any duties related to an outside job during his/her regular working hours or during the additional time that s/he needs to fulfill the responsibilities of the position; nor will an employee use any District facilities, equipment, or materials in performing outside work.

1st Reading: July 12, 2005

2nd Reading: October 20, 2005

Adopted: March 9, 2006

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

SUPPORT STAFF HIRING

The Hollis School Board grants the Superintendent the authority to hire non-certified support staff.

1st Reading: July 12, 2005
2nd Reading: October 20, 2005
Adopted: March 9, 2006

1st Reading: August 2, 2017
2nd Reading: September 6, 2017

IC

Category R

See also [ICA](#), [ID](#)

SCHOOL YEAR

The school year shall be a minimum of 185 days, including a minimum of 178 instructional days for students and additional days for the teaching staff, emergency days, etc.

Any days that the schools are closed for emergency reasons will be made up at the end of the school year or during recess periods, as approved by the Hollis School Board upon the Superintendent's recommendation. Under special circumstances the Board may request an exception to this requirement from the State Board of Education.

Legal Reference:

RSA [189:1](#), Days of School

NH Code of Administrative Rules, Section Ed. [306.18](#), School Year

NH Code of Administrative Rules, Section Ed. [306.19](#), School Calendar

1st Reading: October 20, 2005
2nd Reading: February 14, 2006
Adopted: March 9, 2006

1st Reading: August 2, 2017
2nd Reading: September 6, 2017

ASSIGNMENT OF STUDENTS TO CLASSES

It is the policy of the Hollis School Board that students' class assignments are the responsibility of the Building Principal of the respective schools.

1st Reading: October 20, 2005
2nd Reading: February 9, 2006
Adopted: March 9, 2006

1st Reading: August 2, 2017
2nd Reading: September 6, 2017

JICH

Category R

DRUG AND ALCOHOL USE BY STUDENTS

Dangerous and narcotic drugs, which a student has on prescription and carries onto school property for ingestion as prescribed by a doctor, will be kept in the Nurse's office.

Taking of illegal drugs, and/or possession of same, in any form, is not permitted at any time. Parents will be informed immediately if a student is in violation of this policy, and the matter will be brought to the attention of the Hollis School Board and other proper authorities.

- a. In case a student appears to be under drug influence, the parent will be notified by school authorities to come for the student and remove him/her to his home or to medical facilities.
- b. In severe cases, if the parents will not come to the school, the Principal is authorized to call an ambulance to remove the Student to the hospital. Parents will be notified of this action and be responsible for the incurred expenses.
- c. Upon reasonable evidence of the illegal possession and/or use of drugs by any student on Hollis School District property, the student will be suspended from school for at least five days. A conference with the parents, child and principal should be held as soon as possible.
- d. Any student found selling, distributing, or giving away illegal drugs will be turned over to police authorities immediately and suspended from school at once pending Board action.
- e. Any student convicted in court for illegally selling drugs on or off school property will be suspended from school pending Board action.

Alcoholic beverages will not be permitted on school property at any time. Any Student in possession of or under the influence of alcohol will be immediately suspended from school for not less than five days. The parents will be notified to come for the student and to remove him/her from the premises immediately.

Legal Reference:

RSA 571-C:2, Intoxicating Beverages at Interscholastic Athletic Contests

1st Reading: October 20, 2005

2nd Reading: February 9, 2006

Adopted: March 9, 2006

1st Reading: August 2, 2017

2nd Reading: September 6, 2017

School Lunch Meal Payment Policy

It is the goal of the District to provide students with healthy meals each day. However, unpaid charges place a large financial burden upon the residents of the District. The purpose of this policy is to establish meal payment and "negative balance" guidelines which:

- Treat all students with dignity regarding meal accounts
- Help maintain the financial integrity of District food services
- Encourage parents/guardians to assume the responsibility of meal payments
- Establish consistency regarding charges and collection of balances
- Establish a framework for communicating this policy and District procedures to families and staff

Free and Reduced Meals.

All families are encouraged to apply for the Free/Reduced Breakfast and Lunch Program. Application forms are available through the annual registration process, at the main office of each school and on the SAU 41 website. Applications may be made at any time during the school year.

Pre-payment is required for all student purchases.

All schools in the Hollis Brookline School System [SAU41] utilize a computerized program that assigns an account number to each student. Parents/guardians are expected to maintain enough money in their children's meal accounts to cover the costs of meals, ala carte and snack purchases. The payment program tracks each student's deposits and purchases. This can be done in two ways:

1. By cash or check following the established procedures in your child(ren)'s school(s) OR
2. By credit card through the school's online electronic payment service. Transaction fees may apply.

Negative Balances

Student meal account balances will be monitored on an ongoing basis.

Parents will be notified when a student's meal account balance falls below \$10.00, and again if the balance falls below zero. Parents will be asked to pay the account in full immediately. When forwarding notices to parents regarding low or negative balances, staff are to assure that the communications are discreet, and confidential.

If any student's account falls into the negative, a standard "reimbursable" meal will be provided and charged to the student's account. (A reimbursable meal is defined as a meal consisting of: meat/meat alternative, grains, fruits, vegetables and milk and as further defined by the National School Lunch Program requirements.) Staff must take all reasonable steps to minimize statements or actions that may overtly identify children eligible for free meals. Ala carte and snack purchases are not permitted for any student that has a negative

balance. The student's account balance must have sufficient funds for these types of purchases. This policy, and this paragraph specifically, shall apply equally to all students, whether free/reduced/or full pay.

If a student meal account consistently has a negative balance, the administration will investigate the situation more closely and take further action as needed. If financial hardship exists, parents and families will be encouraged to apply for free or reduced price lunches for their child if applicable. When appropriate, the District may enter into a payment arrangement to bring student accounts current.

Negative balances which continue for more than **two months** or exceed **\$150**, may result in formal collection activities, such as small claims court.

Communication

This policy shall be communicated to:

- Families
 - At the start of the school year
 - Upon enrollment of students who transfer mid-year
 - In Student handbooks
 - On the School websites
- Staff who are charged with:
 - Collecting payments
 - Notifying families of low/negative balances
 - Enforcing the policy (e.g., food service managers and cashiers)

The District will document and maintain a history of the communications made pursuant to this section.

1st Reading: September 6, 2017

HOLLIS BROOKLINE SCHOOL DISTRICT
2018 SB2 and TRADITIONAL ANNUAL MEETING DATES and DEADLINES -DRAFT
USING RSA REGULATIONS

Action	RSA Parameters	SB2		Traditional				RSA Reference
		Brookline	Snow Date	Hollis	Snow Date	Coop	Snow Date	
Last day to <u>post notice</u> of budget hearing	SB2: "...the second Tuesday in January..."; Trad.: at least 7 days in advance of budget hearing	1/9/2018		1/29/2018		1/31/2018		SB2-40:13, II-a(a), 32:5,I; Trad.-32:, I
Last day for negotiated cost items to be finalized	SB2: "...the second Tuesday in January..."; Trad.: not later than 30 days before the date prescribed for the district meeting, or the 2nd Tues in March, whichever is earlier	1/9/2018		2/5/2018		2/9/2018		SB2-40:13, II-a (b), 273-A:1; Trad.-32:5-a; 197:6
Last day for petitioned warrant articles	SB2: "...the second Tuesday in January..."; Trad.: not later than 30 days before the date prescribed for the district meeting, or the 2nd Tues in March, whichever is earlier	1/9/2018		2/2/2018		2/9/2018		SB2-40:13, II-a (b), 39:3; Trad.-197:6
PUBLIC HEARING DATES	SB2: "...on or before the third Tuesday in January..."; Trad.: not later than 25 days before (district meeting) i.e. 25 days or EARLIER	1/11/2018	1/16/2018	2/6/2018	2/13/2018	2/8/2018	2/9/2018	SB2-40:13, II-a (c); Trad.-32:, I
FIRST SESSION-DELIBERATIVE	SB2: "...between the first and second Saturdays following the last Monday in January, inclusive of those Saturdays..."	2/5/2018	2/7/2018					SB2-40:13, III
Town Report Submission Deadline	Deadlines provided by Towns for them to meet timeline requirements	2/9/2018 ?		2/9/2018		2/9/2018		Town Requirements
Last day for budget committee to deliver budget and warrant article recommendations to selectpersons for Posting	Trad.: at least 20 days before [district meeting]			2/13/2018		2/19/2018		Trad.-32:16,IV
Last day to <u>post</u> warrant, budget and default budget	SB2: "...on or before the last Monday in January..."; Trad.: 14 days before day of meeting (not including meeting day or posting day)	1/29/2018		2/19/2018		2/23/2018		SB2-40:13, II-a (d), 39:5, 197:7; Trad.- 197:7
Annual report with budget (and ballot questions) made available to voters	SB2 and Trad.: at least 7 days prior to meeting	3/6/2018		2/26/2018		3/2/2018		SB2-40:13, II; Trad.- 32:5, VII(a)
SCHOOL DISTRICT MEETING DAY	Trad.: annually between March 1 and March 25			3/6/2018	3/8/2018	3/12/2018	3/15/2018	Trad.-197:1
SECOND SESSION-BALLOT VOTING	SB2: "...the second Tuesday in March..."	3/13/2018						SB2-40:13, VII
Submit signed and completed forms to DRA	SB2 and Trad.: within 20 days of the close of the meeting	4/2/2018		3/25/2018		3/31/2018		21-J:34,II