

TECHNICAL SPECIFICATIONS

A. Manufacturing

Foam-in-place insulation shall be TRIPOLYMER® PRIMU or 105 manufactured by C.P. Chemical Company. Both the A component (resin) and B component (catalyst) shall bear the manufacturing lot #, date and product descriptions.

B. Material

The foam-in-place TRIPOLYMER® system shall consist of the A component (resin) and B component (catalyst) supplied by C.P. Chemical. Thickness shall be in accordance with architectural drawings. The insulation shall have the following physical properties:

1. Density of .8 – 1.3 lb/ft.3
2. Compressive Strength 35 psi.
3. Fire Characteristics ASTM E-84

Flame Spread	5
Smoke	0
Fuel	0
4. Thermal Conductivity C-177.@74°F
K factor of 0.219 BTU in/hr - ft2 F
5. Water Vapor Transmission ASTM C-355
Permeability - perms-in 15.5 to 16.9
6. Fire Hour Rating ASTM E-119 - 2 Hrs.

C. Installation

Materials shall be installed according to the manufacturer's instructions through equipment manufactured by C.P. Chemical and by a factory trained / certified insulation contractor with a current certification card.

Product Description

TRIPOLYMER® products are phenolic-based methylene linked synthetic polymers. They are made exclusively by C.P. Chemical Company, Inc. Both the chemical and equipment are patented products. The TRIPOLYMER® system consists of two components: an aqueous resin solution (A) and foaming agent / catalyst (B). These materials are ratioed together with compressed air in specially engineered metering and pumping equipment.

Installation

TRIPOLYMER® can be installed in any cavity through 1" –2" holes or sprayed into new stud construction. Initial set takes approximately 10 – 30 seconds. Final curing is within 48 –72 hrs., depending upon thickness. TRIPOLYMER® is a cold setting process independent of ambient temperatures. There is no further expansion once the foam leaves the delivery hose.

TRIPOLYMER® is installed by C.P. Chemical's network of certified insulation applicators. Specially engineered equipment have

been designed by C.P. Chemical Company for the application of TRIPOLYMER® insulation and are required in the installation of the foam.

Thermal Stability

There is no thermal degradation or reduction in R value over time with TRIPOLYMER® products. Most polyisocyanurates, polyurethane, and expanded polystyrenes degrade over time, resulting in lower R values.

NOTE: TRIPOLYMER® is not a polyurethane, polyisocyanurate or expanded polystyrene product. It does not contain any petrochemicals or fire retardant chemicals.

TRIPOLYMER®, when exposed to intensive heat or flame, does NOT drip or produce smoke.

Limitations

This material should not be used against surfaces with temperature in excess of 212°F for prolonged periods of time. The foam will not support compressive load nor should it be used for flotation, or underground without adequate protection.

Original Equipment Manufacturing

TRIPOLYMER® is an excellent product for continuous process manufacturing and original equipment manufacturers. Computerized equipment for in-plant installations of TRIPOLYMER® is available. This equipment can be adapted for a number of OEM purposes. For additional information please contact C.P. Chemical.

Properties	ASTM Test Method	Results
Fire Hour Rating	ASTM E-119	2 – (4) Hours
Thermal Conductivity (1)	ASTM C-177	
R, Hr.-Ft. 2 °F/BTU		
at 75°F mean		4.8
at 35°F mean		5.1
Surface Burning Characteristics (2)	ASTM E-84	
Flame Spread		5
Smoke Development		0
Heat of Combustion	ASTM D-240-73	7,000 btu per lb.
Corrosiveness	DOE (e)(3) HUD 6.2.8	No Perforations No Pitting Less than 0.05g
Water Vapor Transmission	ASTM C-355	
perms - in.		15.9 – 16.9
Sound Transmission Loss	ASTM E413-73	STC 53
Density	ASTM D-1622	
lbs./Ft.3		0.8 – 1.2
Compressive Strength	ASTMD-1621	
psi	Proc A	May-45
Gel Time	DOE (3)(8) HUD 6.2.3	25 sec.
Shrinkage (variable)	DOE (e)(11) HUD 6.2.5	approx. 0 – 1.5%
Fungi Resistance	HUD procedure	No Growth
Toxicity	FHSA	Non Toxic

Thickness	at 35°F Mean Temperature	at 75°F Mean Temperature
¾"	3.75	3.6
1"	5.1	4.8
1½"	7.5	7.2
2"	10	9.6
3½"	17.5	16.8
4"	20	19.2

For Questions Regarding Installation & Use:



Tripolymer®

FOAM INSULATION

If walls could talk...

FOAM-IN-PLACE INSULATION FOR SAFETY, COMFORT & SERENITY



CEMENT BLOCK CONSTRUCTION



THE MARRIOTT MARQUIS PIPE CHASE



MEDICAL CENTER LABORATORY INSULATION



RESIDENTIAL CLUSTER NEW AND RETROFIT



BRICK VENEER

Manufactured By:
C.P. Chemical CO., Inc.

Distributed by:
Tripolymer, Inc.
(866) 977-3626
injectionfoam.com

THERMAL • ACOUSTICAL • FIRE RESISTANCE
COMMERCIAL • RESIDENTIAL
NEW CONSTRUCTION • RETROFIT

For more than forty years C.P. Chemical has been manufacturing Tripolymer, a highly efficient, economical thermal and acoustical Foam-in-place insulation. Tripolymer's unique chemistry provides the fire resistant characteristic of phenolic polymers as a CLASS 1 Building Material that will upgrade the fire hour rating of many wall systems.

With Safety, Comfort and Serenity, utmost in the customer's mind, Architects have specified Tripolymer in schools, hospitals, universities, high-rise buildings, shopping centers and residential cluster homes coast-to-coast. Tripolymer reduces energy loss, improves sound attenuation and most importantly increases the fire safety of many types of construction.

Tripolymer unique chemistry meets the new environmental standards since it does not use or emit HCFC or hydrocarbons.

VERSATILITY

Tripolymer can be used in virtually any type of construction; commercial masonry block core fill, block/brick veneer, residential home or cluster projects or either new or retrofit applications.

FIRE RESISTANCE

Independent laboratories have tested Tripolymer under a wide variety of construction systems for their fire ratings. It is rated as a CLASS 1 Building Material and does not emit hazardous gases when exposed to heat or fire. Tripolymer will not support combustion and will not ignite or drip when under fire conditions.

EFFICIENCY

Tripolymer has an R rating of 4.8 @72°F per inch and becomes more efficient at colder temperatures (R-value 5@32°F). It begins saving energy and dollars immediately upon installation and does not decrease in efficiency over time. Infiltration is greatly reduced as compared to fiber batt and blown in fibrous type insulations and does not settle.

EASE OF INSTALLATION

Tripolymer is a cold setting foam that is installed into the wall system through specially engineered metering equipment by factory trained and certified contractors. It easily flows into hard-to-reach cavities, completely filling the cavity and hardens within 10 to 60 seconds after injection. Tripolymer Foam-In-Place is a cold setting process and therefore does not expand once it is injected into the wall cavity. Small cavities around window units, pipe chases, air ducts and conduits can easily be retrofitted.

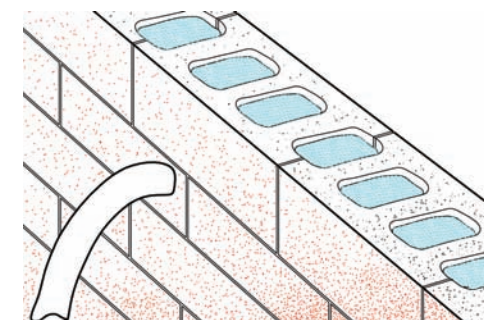


Tripolymer® is a registered trade mark of C.P. Chemical Co., Inc.



Masonry Block / Core Fill

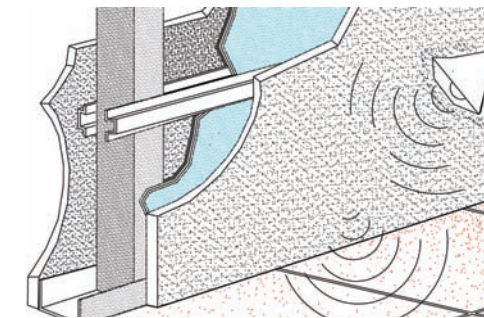
- Increased thermal performance over inserts and pour-in
- HUD, ASTM & NYC-MEA
- Insulates block & mortar joints
- Applied after wall sections are complete



Tripolymer foam-in-place insulation is easily and efficiently installed in blocks after the wall is constructed, completely filling all block and mortar joints regardless of obstructions. Using a pressure fill method, it is injected through a 5/8" to 1-inch holes. A two-man crew can complete up to 10,000 blocks in a day.

Sound Deadening

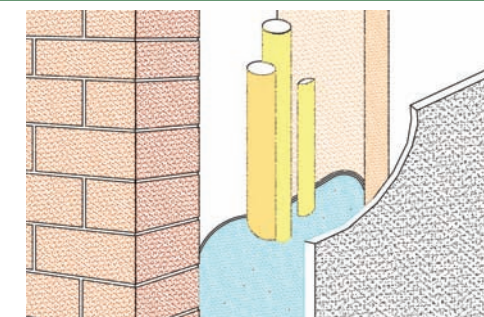
- Reduces Sound transmission
- STC rating 53
- Upgrade existing wall systems
- For elevator shafts, pipe chases, bedrooms, bathrooms, party walls and road noise.



Tripolymer's cellular structure provides an effective acoustical barrier against airborne sound transmissions. It can be installed in both new and retrofit construction, eliminating sound transmission through interior and exterior walls. Tripolymer reduces resonance vibration of interior finishes.

Pipe Chases

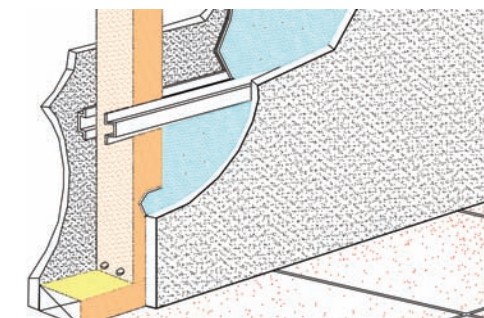
- Eliminates condensation
- Reduces heat loss
- Deadens noise from water and waste lines
- Protects pipes from freezing



Condensation problems from water pipes can be eliminated easily and inexpensively with Tripolymer in both new and retrofit construction. Tripolymer will also protect pipes from freezing by eliminating cold air infiltration and updraft.

Correct Fire Wall Ratings Problems

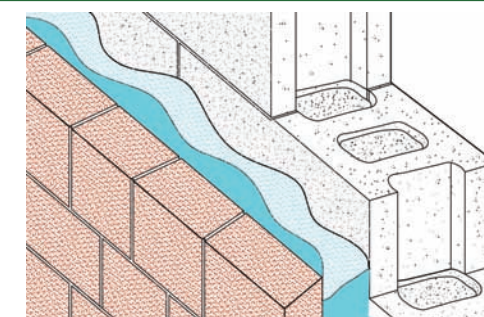
- Correct deficiencies in Fire Wall construction
- Custom solutions for fire rating problems
- Stop internal wall fire updraft
- Does not support combustion



Tripolymer's excellent fire properties are attributed to its unique phenolic chemistry. Tested by ASTM E-84, ASTM E-119 for steel stud, wood frame, party wall partitions and load bearing interior and exterior walls, Tripolymer will increase fire hour ratings from 50% to 150%, eliminating the need to install costly gypsum.

Brick Veneer / Masonry

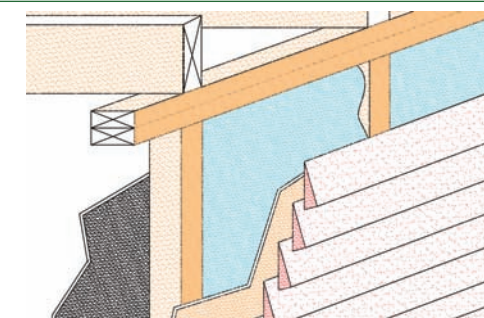
- Less costly than rigid board construction
- No cutting and fitting
- Less labor and time
- Less infiltration than with board type insulation



Unlike rigid board insulations that are labor intensive and expensive, Tripolymer is foamed in place at 15-foot height intervals after the masonry is up. The hose is dropped to the bottom of the cavity and withdrawn as the cavity fills, flowing around wall ties and other obstructions, leaving no voids.

Cluster Projects / Town Houses

- Fast and easy to install
- Upgrade buildings already inhabited
- Less interior labor and less cost
- Less destruction required



Many cluster developments fail local and state fire ratings after construction is complete. Tripolymer can easily correct faulty construction violations to meet today's building codes. Firewall rating can be increased to meet codes without the costly addition of double layer gypsum boards.