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TECHNICAL BULLETIN

POLYURETHANE RESIN

Product Code - 5070

PATENTED NON CFC OR HCFC CONTAINING SPRAY FOAM SYSTEM

DESCRIPTION:

Sprayable resin system for rigid, closed-cell, low k-factor urethane foams. Designed especially for applications with two-component spray equipment capable of handling material with short reaction time.

FEATURES:

- Low, readily atomizable viscosities
- Excellent compatibility of components
- Fine uniform cell structure with good strength and dimensional stability

APPLICATIONS:

Thermal insulation for building construction, roofing, siding, floors, wall cavities...new or retrofit. Product 5070 is also suitable to insulate tanks, vessels, piping, cold storage buildings, or wherever superior insulation is required.

WARNING:

Polyurethane products manufactured or produced from these chemicals may present a serious fire hazard if improperly used or allowed to remain exposed or unprotected. The character and magnitude of any such hazard will depend upon a broad range of factors which are controlled or influenced by the manufacturer, applicator, or production process by the mode of application or installation and usage of the particular end product.

Each person, firm, or corporation engaged in the manufacture, production, application, installation, or use of any polyurethane materials should carefully determine whether there is a potential fire hazard associated with such product in a specific usage, and utilize all appropriate precautionary and safety measures as outlined in local, state, and federal regulations governing the manufacture of products in the construction and/or renovation of commercial or residential structures.

Notice:

The information herein is to assist customers in determining whether our products are suitable for their applications. Our products are intended for sale to industrial and commercial customers. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. We warrant that our products will meet our written specifications. Nothing herein shall constitute any other warranty express or implied, including any warranty of merchantability or fitness. Nor is protection from any law or patent to be inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials and in no event shall we be liable for special, incidental, or consequential damages.



TYPICAL PHYSICAL CHARACTERISTICS OF THE FOAM

PROPERTY	5070-1.8	5070-2.0	5070-2.5	5070-3.0
Density, pcf-sprayed	1.7-1.8	1.9-2.1	2.4-2.6	2.9-3.2
K Factor-aged (B.T.U in/ft ² •hr•°F)	0.166	0.168	0.168	0.169
Compressive Strength	25 psi	28 psi	36 psi	48 psi
Shear Strength	22 psi	24 psi	32 psi	39 psi
Water Vapor Transmission (Perms/Inch)	2.5	2.8	2.3	2.0
Humid Aging, 158°F/98% RH, one week				
a. Volume change	-2.65	-2.6	-1.8	-1.67
b. Weight change	-1.15	+1.1	+0.9	+0.75

REACTIVITY CHARACTERISTICS (Laboratory Analysis)

	WINTER	REGULAR	SUMMER
Cream Time	2-3 seconds	3-5 seconds	5-7 seconds
Rise Time	6-10 seconds	10-18 seconds	18-24 seconds
Tack Free	12-15	14-16	16-18
Cure Time	4 hours	4 hours	4 hours

LIQUID COMPONENT PROPERTIES

PROPERTY	PREPOLYMER	RESIN
Color	Dark Brown	Dark Amber/Dark Brown
Specific Gravity	1.27	1.08
Weight per Gallon	10.5 lb	9.0 lb
Viscosity-Brookfield	300 cps	350-450 cps
Mixing Ratio by Volume	100	100

FIRE HAZARD* CLASSIFICATION (ASTM-E84) (ANSI 2.5) (NFPA 255) (UL-723)

FOAM THICKNESS	FLAME SPREAD	SMOKE DEVELOPED
Nominal 2 inch	20	425

** This numerical flame spread rating and all other test data are not intended to reflect hazards presented by this or any other material under actual fire conditions.*



HANDLING PRECAUTIONS:

Product - 5070 A Component contains a reactive isocyanate of the low volatility, minimal toxicity type but is nevertheless classified as a toxic material. Avoid contact with skin, eyes, or clothing. Wear suitable protective clothing. Avoid breathing vapors. Foaming operations should be performed in a well ventilated area. Forced ventilation is recommended in confined areas to help keep vapors away from the workers. The use of a respirator is imperative in spraying operations. In the case of contact with eyes, wash with plenty of water and get immediate medical attention. Wash skin or clothing immediately with alcohol then with plenty of soap and water.

Product - 5070 B Component contains a volatile catalyst (Tertiary Amine) which requires proper protection of the eyes and skin. Adequate ventilation is recommended.

STORAGE INFORMATION:

Product-5070 A Component should be protected from moisture contamination. For intermittent uses, the container or drum should be fitted with a dry air breather (9" pipe nipple filled with anhydrous calcium sulfate stopped on ends with cotton plugs and fitted into the vent bung). A storage temperature of 50-80°F must be maintained.

Product-5070 B Component must be stored at a temperature range of 50-75°F. When opening a container, partially unscrew the cap of the vent bug to relieve any pressure before opening fully. Reseal the container as soon as the required amount has been withdrawn and return to cool storage.

Both materials, when properly stored, are stable for at least six months.