
EpoxySystems' Product #425

Two-Component Rigid Polyurethane Foam

DESCRIPTION

EpoxySystems' Product #425 is a two component, HCFC-141b/water co-blown rigid polyurethane foam system designed for low-density insulation applications. PRODUCT #425 is typically used for floatation (Boat Foam) inside fiberglass parts. It bonds well to metals, wood and some plastics. This foam system meets Military Specification P-21929B.

MIXING

EpoxySystems' Product #425, for best property development, is mixed 1 to 1 by weight. EpoxySystems' Product #425 can be mixed at 1 to 1 by volume it will still foam. Typically EpoxySystems' Product #425 is mixed while being pumped through static mixers. The EpoxySystems' Product #425 can be mixed by hand in small quantity (less than 8 ounces). It can also be mixed by mechanical means such as slow speed drill. Time is critical as the EpoxySystems' Product #425 reacts very fast. Mix completely in 30 seconds and immediately pour in place. Over mixing can affect properties.

STORAGE AND HANDLING

Store between 65-85 °F in dry area. Avoid sunlight, heat and freezing. Keep from moisture, which can create pressure and rupture container. Keep container closed. Empty container has product residue - recondition before reuse. Don't heat or cut with electric or gas torch. Keep waste polyols out of empty drum.

A COMPONENT WARNING! CAUSES IRRITATION. Keep out of eyes. Wear goggles. Avoid skin contact. Wear plastic or rubber gloves and protective clothing, if splashing is likely. Do not breathe vapor or mist. Keep container closed. Use with adequate ventilation. Wash after handling.

Fluorocarbon Blown Polyol - Store below 70°F. Keep away from direct sun. Cool below 70°F. Open bung carefully. Contents may develop pressure. If cooled below 50°F, gently warm to room temperature before opening. Do not put any waste isocyanates into this empty drum.

Water Blown Polyol - Store between 65-85°F. Keep away from direct sunlight. Open gradually to relieve any pressure build-up. Keep away from moisture. If cooled below 50°F, gently warm to room temperature before opening. Do not put any waste isocyanates into this empty container.

All polyurethane foam burns in varying degrees, which in turn liberates toxic gasses and should be evaluated in its final form for compliance to existing standards in your industry. The information presented herein is based on our own research and that of others and is believed to be correct, however, no warranty is expressed or implied. No statement herein extends any license, either expressed or implied, in connection with any patents issued or pending which may be the property of Stepan or others. The manufacturer shall not be liable

(regardless of fault) to the vendee's employees, or anyone for any direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishings of such information. _

FIRST AID

In case of skin contact, wipe off using a clean cloth soaked with rubbing alcohol, then wash with soap and water. In case of eye contact, immediately flush eyes with water for at least 15 minutes. If breathing is difficult, go to fresh air. Call a physician.

HEALTH AND SAFETY

INFORMATION: "B" COMPONENT WARNING! MAY CAUSE ALLERGIC SKIN OR RESPIRATORY REACTION. Vapor, mist and decomposition products are harmful, can be highly toxic and irritating. Avoid eye contact or prolonged or repeated skin contact. Don't breath smoke or gases from overheated material. Use only with adequate ventilation or respirator. If spilled on clothes or shoes, remove and clean before reuse.

Typical Foam Properties

Density	ASTM D-1622			
Molded, overall pcf		3.4		
Core, pcf		2.7		
Yield cu.ft./gal.		3.0 ±		
Compressive Strength, 10% deflection, ASTM D-1621				
Parallel, psi		25.3		
Perpendicular, psi		30.5		
Compressive Strength Change, Mil-P-21929B, % change		2.35		
Initial K-Factor, ASTM C-518, BTU in/hr ft<=		0.141		
Shear Strength, psi		31.0		
ASTM C-273				
Tensile Strength, psi		51.9		
ASTM D-1623				
Water Absorption				
ASTM D-2842, lb/ft<=		0.083		
% by volume		4.7		
Tumbling Friability,		11.1		
ASTM C-421		"B" Component, polyol blend		
% loss				
Closed Cell Content		95		
ASTM D-2856, %				
Compression Set, Mil-P-21929B, % loss		0.97		
Oil Resistance		Pass		
ASTM D-471, Mil-P-21929B				
Dimensional Stability				
ASTM D-2126, % volume change:				
	@ -20°F	@158°F	@158°F	@ 100°F
			100% R.H.	100% R.H.
1 day	0.2	0.3	5.3	1.3
7 days	0.1	1.0	7.0	2.1
14 days	0.2	1.5	7.9	2.5
28 days	0.3	1.8	8.9	3.5

Typical Component Properties

	"A" Component, polymeric MDI	"B" Component, polyol blend
Viscosity @ 25° C, cps	200	400
Specific Gravity @ 25° C	1.24	1.12
Mixing Ratio, % by weight	50	50

Typical Component Properties:

Hand Mix Reactivity @ 25°C	
Cream Time, seconds	24
String Time, seconds	90

FOR INDUSTRIAL USE ONLY. KEEP AWAY FROM CHILDREN

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