TECHNICAL DATA SHEET

ResinTech™ HD8

High-Density Rigid Polyurethane Foam System

(RT400008)

Description

ResinTech™ HD8 is a two-component, formulated polyurethane solution. RT HD8 is an AWB (all water-blown) high-density rigid foam system developed specifically for both injection and open-pour molding applications. The nominal free rise density is 8.0 pcf with the ability to modify reactivity profiles to best suit your manufacturing environment.

Attributes

ResinTech HD8 has an easy to use 1:1 by weight mix ratio with smooth reactivity profile producing excellent flow characteristics for intricate surface detail demands. This system was developed with the versatility to be produced using a large range of dispensing equipment as well as hand-mixing methods. The fine cell structure allows for a quality aesthetic surface with inexpensive molds, such as silicone.

This 8.0 pcf free-rise density foam can be readily packed to 12.0+ pcf density with adequate venting at ambient temperature conditions. The system is fast-curing with demold times as low as 7 to 8 minutes depending on percent over-pack, mold dimensions, and mold temperatures. This molded polyurethane foam produces excellent tensile and shear strength as well as impact resistance which makes it conducive to being shaped, nailed, or screwed to a substrate. The mold can be pre-treated with an in-mold coating or the finished foam surface can be painted or stained for the desired effect.

Applications

This system can be used to produce molded ornamental furniture trim, picture and mirror frames, as well as other architectural trim components. This system typically replaces any carved wood, cast plaster, or metal where detail and / or weight are critical.

Processing Characteristics

Liquid Component Properties	**Isocyanate**	**Polyol Blend**
Color	Dark Brown	Amber
Viscosity Brookfield (cP)	200	1500 - 1700
Specific Gravity	1.24	1.07

Recommended Processing Conditions	**Isocyanate**	**Polyol Blend**
Temperature (^{o}F)	70 - 90	70 - 90
Mixing Pressure (psi)	1500 - 2000	1500 - 2000
Mixing Ratio (by weight)	100	100

Reactivity Characteristics	**Hand Mix (@75^{o}F)**	**High Pressure Machine**
Mix Time (sec)	8 - 12	n/a
Cream Time (sec)	38 - 45	12 - 17
Gel Time (sec)	155 - 165	68 - 78
Rise Time (sec)	230 - 250	120 - 130
FRD (pcf)	7.8 - 8.2	7.8 - 8.2

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Storage and Shelf Life

Both components should be stored in their original containers and away from excessive heat and moisture, especially after the seals have been broken or some materials have been used. Drums must be stored indoors and jobsite tanks maintained between 55°F and 75°F. Containers should be opened carefully to allow any pressure buildup to be vented safely while wearing full safety protection.

When stored in the original unopened container at recommended temperatures, shelf life is 6 months. Excessive low or high temperatures may decrease shelf life.

Freight Classification

Component A - Resin Compounds Item 46030, Class 55, NOIBN Non-Hazardous
Component B - Resin Compounds Item 46030, Class 55, NOIBN Non-Hazardous

Warning

Read and understand the Safety Data Sheet for this product before use. Polyurethane foam may present a fire hazard if exposed to fire or excessive heat (i.e. cutting torches). Each firm, person, or corporation engaged in the use, manufacture, or production or application of the polyurethane foams produced from these resins should carefully examine the end use to determine any potential fire hazard associated with such product in a specific use and to utilize appropriate precautionary and safety measures.

Consult with local building code officials and insurance agency personnel before application. Do not re-circulate the 'B' component for increased storage temperature as frothing or boil-over may occur at material temperatures above 60°F.
Polyurethane foams will burn when exposed to fire. Caution during application must be observed with signs posted for other trades, "**Warning: Combustible Insulation, No Welding or Hot Work Allowed**". On a daily basis remove all debris and shavings from the job site leaving a clean work area.

In freezing conditions [below 32°F], jobsite air temperature must be maintained above 50 degrees F. during the cure cycle so extreme temperature drops to the curing [green] foam are not experienced. **When using fuel fired heating units the exhaust must be vented directly outdoors to prevent unsafe carbon monoxide conditions in the work area.** Electric heating units are preferred. All heaters must be turned off before the application of foam begins. Henry Technical Personnel should be consulted in all cases where application conditions are marginal.

Worker Exposure Hazards – Both Components A and B can cause severe respiratory and skin sensitization. For interior applications: full body protection required including air supplying respirator such as a self-contained breathing apparatus (SCBA) or a supplied air respirator (SAR) in the positive pressure or continuous flow mode (this includes air supplied hoods). For exterior applications: required either a full face air purifying respirator or half face worn in combination with chemical safety goggles. The recommended APR cartridge is an organic vapor/particulate filter combination cartridge (OV/P100). It is recommended that all applicators and workers obtain recurrent formal training before exposure to or applying this product. More product information and training materials can be found at Henry Company www.henry.com or www.polyurethane.org.

Warning signs should be posted at all entrances stating, "Warning, Breathing Hazard During the Application of Insulation materials. DO NOT ENTER without Proper Breathing Protection."

Limited Warranty

We warrant that our products will meet our written specifications at the time of sale only. We will replace at no charge any product proved to have a material defect within 12 months of purchase, provided it has been applied in accordance with our written directions for uses we recommended as suitable for this product. Proof of purchase must be provided.

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