



**TECHNICAL DATA SHEET
POLYURETHANE FOAM SYSTEM**

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**POLARFOAM PF-6382-0
POUR-IN-PLACE SYSTEM**

Polarfoam PF-6382-0 is a rigid two component urethane foam system especially formulated for pour-in-place applications. This system is formulated with recycled plastic materials as well as vegetable oils (a renewable raw material). This foam is expanded without Ozone Depleting Substances.

Applications:

- Insulating panels

Important:

It is important to monitor the in-place density of the foam as stated in the processing recommendations (see reverse page). A lower density will result in poor physical properties. Furthermore, proper temperature (110-130°F) of the substrates is critical in order to obtain a good adhesion of the foam to the substrate. It is the user's responsibility to test the product to ensure it performs to their expectations.

LIQUID COMPONENT PROPERTIES

Properties	Isocyanate	Resin
Colour	Brown	Greenish
Viscosity @ 25°C (cps)	150-350	200 - 300
Specific gravity	1.20-1.24	1.17-1.19
Mixing ratio (weight)	125	100

PROCESSING RECOMMENDATIONS

Type of Machine	A high or a low pressure machine	
Isocyanate Temperature	20-23°C	68-73°F
Resin Temperature:	20-23°C	68-73°F
Mold or Panel Temperature:	43-54°C	110-130°F
Minimum In-Place Density Recommended	40 Kg/m ³	2.5 lb/ft ³

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REACTIVITY PROFILE

	Handmix*	Machine**
Cream Time (sec.)	10-15	8-12
Gel Time (sec.)	65-80	40-55
Tack Free Time (sec.)	125-145	90-110
Free Rise Density (lb/ft ³)	1.75-1.85	1.65-1.75

*Mixer 2 inches @ 2500 RPM for 10 seconds, liquid components at 20°C.

**High pressure machine (2500 psi), liquid components @ 23°C

PHYSICAL PROPERTIES

Description	Results	ASTM
Density (In-Place)	40 kg/m ³ 2.50 lb/ft ³	D 1622
Thermal resistance R (2 in. thick panel, 2 days @ 23°C)	1.20 m ² .°C/W 6.8 ft ² .h.°F/btu.in.	C 518
Thermal conductivity K (2 in. thick panel, 2 days @ 23°C)	0.833 W / m ² .°C 0.147 Btu.in/ft ² .h.°F	C 518
Thermal resistance R (2 in. thick panel, 90 days @ 23°C)	1.15 m ² .°C/W 6.5 ft ² .h.°F/btu.in	C 518
Thermal conductivity K (2 in. thick panel, 90 days @ 23°C)	0.873 W/m ² .°C 0.154 Btu.in/ft ² .h.°F	C 518
Compressive strength (parallel)	194 kPa 28.1 psi	D 1621
Dimensional stability (% vol. change @ 28 days) 80°C, ambient relative humidity 70°C, 90% relative humidity -30°C, ambient relative humidity	+ 0.12 + 1.86 - 0.23	D 2126
Water absorption (% Volume)	<3.0	D 2842
Tunnel Flame Test	25	E84

These physical properties were obtained with the processing recommendations listed above.

The information herein is to assist customers in determining whether our products are suitable for their applications. We request that customers inspect and test our products before use and satisfy themselves as to contents and suitability. Nothing herein shall constitute a warranty, express or implied, including any warranty or merchantability or fitness, nor is protection from any law patent inferred. All patent rights are reserved. The exclusive remedy for all proven claims is replacement of our materials. Polyurethane foam is combustible. It is recommended that the user read the material safety data sheets on the liquid chemicals before using the products.

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