



## Product Bulletin

### Product Description

#### JFOAM™ S-180

JFoam™ S-180-R is the resin component of a two part polyurethane system, which when combined with the T component, Isocyanate, will produce a HFC-245fa -blown rigid polyurethane spray foam system. S-180 is used primarily as low density thermal insulation for cryogenic tank applications.

### Typical Chemical Properties

	<b>S-180-T</b> T Component <u>Polymeric MDI</u>	<b>S-180-R</b> R Component <u>Polyol Blend</u>
Viscosity, cps	200 at 77°F	500 at 60°F
Liquid Density at 77°F (25°C), g/ml	1.24	1.17
Mixing Ratio (% by weight)		
R Component Water Blown Polyol		48.5
T Component Polymeric MDI		51.5

### Typical Physical Properties

Hand Mix Reactivity at 77°F (25°C), (T & R)	
Cream Time, seconds .....	3
Tack Free Time, seconds .....	14
Cup Core Density, #2 cup, pcf .....	1.77
Density, ASTM D-1622 Core, pcf .....	2.69
Compressive Strength, 10% deflection, ASTM D-1621	
Parallel, psi .....	44.84
Perpendicular, psi .....	29.22
Compressive Modulus, ASTM D-1621	
Parallel, psi .....	1163
Perpendicular, psi .....	662
Shear Strength, ASTM C-273	
Parallel, psi .....	40.32
Modulus, psi .....	1688
Tensile Strength, ASTM D-1623	
Parallel, psi .....	68.89
Modulus, psi .....	2524
Water Absorption, ASTM D-2842 lb/in <sup>2</sup> .....	0.03
% by volume .....	1.87
Friability, % loss, ASTM C-421 .....	0.71
K-factor, aged, BTU in/hr ft <sup>2</sup> °F, ASTM C-518 .....	0.147

Dimensional Stability, ASTM D-2126, % volume change:

	<u>-20°F (-29°C)</u>	<u>158°F (70°C)</u>
1 Day	-0.03	0.22
7 Day	-0.04	0.22
14 Day	-0.07	0.71
28 Day	-0.01	1.13

## Storage

Avoid moisture contamination during storage, handling, and processing. Store the isocyanate component from 65°F to 85°F. Do not expose isocyanate component to lower temperatures as freezing may occur. Store the polyol component at temperatures not exceeding 60°F.

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## Shelf Life

The shelf life is 6 months if stored in original unopened containers.

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## Health and Safety Information

Safety Data Sheets are available which provide information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read and become familiar with the available information on the risks involved, proper use, and handling.

All polyurethane foam burns in varying degrees, which in turn liberates toxic gases; the foam should be evaluated in its final form for compliance to existing standards in your industry. Nothing contained herein grants or extends a license, express or implied, in connection with patents, issued or pending, of the manufacturer or others. The information contained herein is based on the manufacturer's own study and the works of others. The manufacturer makes no warranties, expressed or implied, as to the accuracy, completeness, or adequacy of the information contained herein. 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 furnishing of such information.

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