

# CARPOL<sup>®</sup> SP-477

# Polyether Polyol

**CARPOL<sup>®</sup> SP-477** is a sucrose-initiated polyether polyol. The high functionality of the initiator yields a resultant polyol with a nominal functionality of five and a typical hydroxyl value of 470. Due to this polyol's functionality, its niche is rigid foam and its applications. Blending this polyol with other polyether polyols allows for foam systems with high to low degrees of crosslinking. In addition, CARPOL<sup>®</sup> SP-477 is a neutral material, which presents the formulator with complete catalytic control over a system.

## Typical End Use Applications

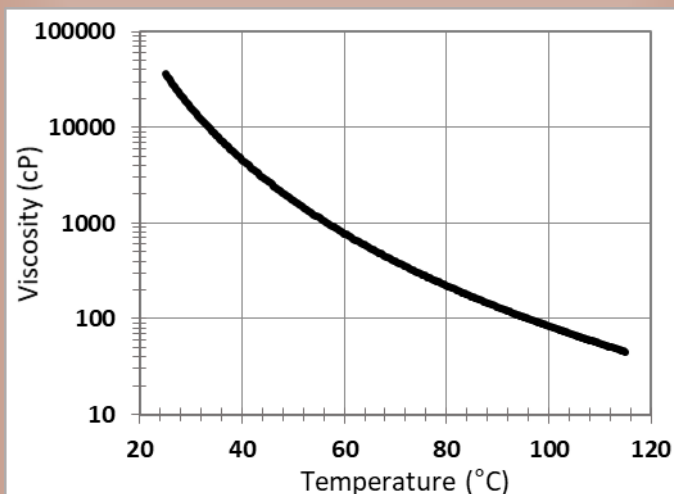
- Insulation
- Portable Coolers
- Pour-in-Place Insulation
- Rail Boxcars

### Typical Analytical Properties\*

Hydroxyl Number (mg KOH / g)	470
pH (10 parts of IPA: 6 parts of H <sub>2</sub> O)	7.0
Moisture (%)	[maximum] 0.10
Color (Gardner)	[maximum] 7
Appearance	Free & Clear
Viscosity @ 25 °C (cP)	33,000
Density @ 25 °C (lb / gal)	9.42
Total Amine Value (mg KOH / g)	1.0
Potassium (ppm)	[maximum] 20

\*Please note that these values are not specifications

### Viscosity Profile



### Viscosity Information

77 °F	140 °F	170 °F
33,000 cP	850 cP	470 cP

## CARPOL® SP-477 Foam Formulation

<u>B-Side Components</u>	<u>Parts</u>
CARPOL® SP-477	60.00
CARPOL® GP-700	24.00
TEGOSTAB® 8408	1.50
DABCO® R-8020	1.00
Water	1.50
Enovate® 245 FA	12.00

### Mix Ratio

101 parts of Polymeric MDI : 100 parts of B-Side

## Reactivity Profile @ 70 °C

Cream	26
Gel	142
Free Rise	192
Tack Free	201

## Physical Properties

Free Rise Density (lb / in <sup>3</sup> )	2.20
Compression Strength, parallel (psi)	28
Compression Strength, perpendicular (psi)	24
Humid Age, 28 days, 90% Rel. Humidity, 158 °F (% Change)	3.8
Low Temperature Age, 28 days, -20 °F (% Change)	-0.5
Oven Age, 28 days, 200 °F (% Change)	0.5

## Storage Information

CARPOL® SP-477 will absorb water if the product container is not secured properly. This may affect reactivity, appearance, and performance. Therefore, it is advised that all receptacles containing this material be tightly fastened and stored in a dry place.

Consult the Safety Data Sheet for additional information.

## Health and Safety Information

Health and safety information is available in the form of a Safety Data Sheet. This literature, describing proper precautions and personal protective gear, is available for review. To receive this information please contact a Carpenter Co. representative.

## Ordering and Shipping Options

### Sample Sizes

1 quart  
1 gallon  
5 gallon

### Products Packaged/Shipped

Drum 460 lb net wt.  
Totebin 2,300 lb net wt.  
Tankwagon 40,000-45,000 lb net wt.  
Railcar 185,000-189,000 lb net wt.

For additional information please contact:

Carpenter Co.  
Chemicals Division  
**Customer Service 800-260-5373**  
5016 Monument Avenue  
Richmond VA 23230

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**Important:** The information contained in this product data sheet is offered for your consideration, investigation, and verification. The data is presented in good faith and is believed to be reliable. Carpenter, however, makes no representation as to the completeness or accuracy. Carpenter makes no warranty, express or implied, with respect to the data contained herein. Carpenter cannot anticipate all conditions under which this data and the product may be used. The conditions of handling, storage, use, and disposal of the product are beyond Carpenter's control. Thus we expressly disclaim responsibility or liability for any loss, damage, or expense arising out of reliance on the information contained herein. You are advised to make your own determination as to safety, suitability, and appropriate manner of handling, storage, use, and disposal. For further information please consult the appropriate Carpenter Safety Data Sheet. **Warning:** These products can be used to prepare a variety of polyurethane products. Polyurethanes are organic materials and must be considered combustible.