

## $Poly-G^{\mathbb{R}}$ 55-28

Poly- $G^{\circledR}$  \* 55-28 polyol is an ethylene oxide-capped diol that produces urethanes with physical properties superior to those achieved with a conventional polyol of equivalent molecular weight. The ethylene oxide cap yields a primary hydroxyl content of approximately 85%, which enhances reactivity. Typical applications are those requiring high elongation and flexibility, softness, or both.

*Poly-G* 55-28 polyol has a nominal molecular weight of 4,000. It is a stable, practically colorless liquid that is neither volatile nor corrosive, with a low pour point and high flash point.<sup>1</sup>

Typical physical properties are presented in Table 1. The effects of temperature on the viscosity and specific gravity are shown in Figures 1 and 2, respectively.

| Table 1<br>Typical Physical Properties |        |
|--|--------|
| Hydroxyl No. (mgKOH/g)                 | 28     |
| Water (% by weight), max               | 0.02   |
| Acid No. (mgKOH/g), max                | 0.05   |
| Color (APHA)                           | 25     |
| pH in 10/6 Isopropanol/Water           | 6      |
| Viscosity @ 25°C (cs)                  | 900    |
| Specific Gravity @ 25°C/25°C           | 1.0235 |
| Flash Point <sup>1</sup> , COC         |        |
| (°C)                                   | 242    |
| (°F)                                   | 468    |
| Density @ 25°C (lb/gal)                | 8.53   |

## **Storage and Handling**

*Poly-G* 55-28 polyol presents no unusual problems for ordinary handling and storage. Consideration must be given to some of its properties when high product purity must be maintained.

*Poly-G* 55-28 polyol is hygroscopic. While water content at the time of shipment is extremely low, the product can absorb atmospheric moisture in amounts up to several percent of its weight.

Figure 1 Viscosity vs. Temperature Poly-G 55-28 polyol

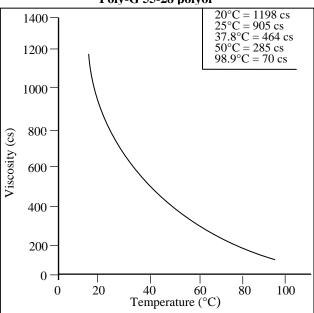
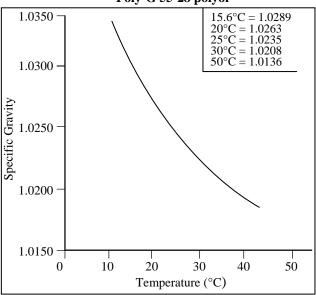


Figure 2 Specific Gravity vs. Temperature Poly-G 55-28 polyol



<sup>&</sup>lt;sup>1</sup>The flammability properties of this material, or any other material, are not intended to reflect the fire hazards presented by any resultant cellular or foamed plastic product.



Thus, storage should be in drums or bulk tanks under a blanket of dry nitrogen or -40° dew point dry air. Calcium chloride or silica gel drying systems should be installed on all vents to prevent atmospheric moisture from entering the tank. See Monument Chemical Data Sheet "Storage and Handling of *Poly- G Polyols*" for recommendations of construction materials and heating systems

## For More Information Technical Service

Technical service is available to facilitate further use of Monument Chemical products. If you have a specific question or need further information, please write or call Monument Chemical, Customer Service, 2450 Olin Road, Brandenburg, KY 40108; (800) 636-3786, or fax: (270) 422-6456.

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