

CO₂nverge[®] Polyol CPX-2520-56

| Typical Properties of CPX-2520-56 | Unit | Value |
|-----------------------------------|-----------------|-------|
| OH Number | mg KOH/g polyol | 56 |
| Acid Number | mg KOH/g polyol | < 0.1 |
| Water Content | ppm | < 500 |
| Color | APHA | < 100 |
| Density | g/ml | 1.13 |
| CO ₂ content | Weight % | 20% |

Description

Converge CPX-2520-56 is an innovative, high performance polyol for a variety of polyurethane systems. It is an amorphous, hydroxyl terminated diol produced from propylene oxide and carbon dioxide. The molecular weight of CPX-2520-56 is 2,000 g/mol and it has a low polydispersity index of 1.1.

Features

CPX-2520-56 is used in the preparation of adhesives, coatings, sealants, elastomers and TPUs. Polyurethanes prepared using this polyol in the formulation have superior properties compared with 100% polyether or polyester polyols. In adhesive applications it provides improved green strength and adhesion to a variety of substrates. In coatings and elastomers, CPX-2520-56 can improve hydrolytic stability, mechanical strength and toughness.

Formulation and Application Notes

Converge CPX-2520-56 has excellent compatibility with polyester, polycarbonate, and polyether polyols. It is compatible with isocyanates, chain extenders, surfactants and catalysts used in standard polyurethane systems. CPX-2520-56 is viscous at low temperatures and can be warmed prior to using to reduce viscosity. It is recommended to heat the polyol container at 60 °C for up to 24 hours prior to use.

Storage and Handling

CPX-2520-56 absorbs water, which could alter its reactivity or the physical properties of final products. It is recommended that the product be consumed entirely after opening; if the product is not entirely consumed, purge headspace with dry nitrogen before sealing. To reduce product viscosity for dispensing, drums may be warmed via hot box or full-coverage jacket heater (belt-style heaters are not recommended). CPX-2520-56 can be safely heated to a maximum temperature of 75 °C for a duration no longer than three days. Exceeding these recommendations may compromise product quality.

Other Information

Patent protected under US 8247520 and CN 102149746. Other patents pending.

Regulatory

CPX-2520-56 is TSCA exempt under EPA Polymer Exemption in the USA. It is covered under existing REACH monomer registrations in the European Union. Product is registered in Taiwan. Product registration is pending in Japan, Korea, and China.

