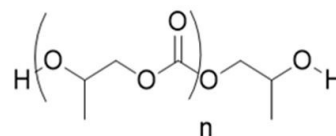


CO₂nverge® Polyol 212-10

Description

Converge polyol 212-10 is a 1000 molecular weight polymer produced from propylene oxide and carbon dioxide. It is an amorphous, linear, aliphatic polycarbonate diol. Carbon dioxide accounts for approximately 40% of the polyol mass.



Applications

Converge polyol 212-10 is a solvent-free, high viscosity building block for a variety of polyurethane systems. It can be used in the preparation of adhesives, foams, coatings, elastomers and TPUs.

Features

The aliphatic polycarbonate backbone delivers unique high performance to polyurethanes in terms of both strength and environmental resistance. In adhesive applications, it provides improved adhesive and cohesive strength and hydrolytic stability. In coatings, it delivers UV resistance and high hardness. It substantially increases the load bearing, tensile, and tear strength of flexible foams. Converge polyol 212-10 can also improve abrasion resistance.

Formulation and Compatibility

Converge polyol 212-10 can be blended into existing urethane systems. Increased temperature (60-80°C) is recommended to reduce viscosity and aid mixing. It has excellent compatibility with polyester polyols and isocyanates. Compatibility with polyether polyols is low to moderate; it is recommended that polyether-based systems are cured shortly after polyol blending. Converge polyol 212-10 is compatible with all standard chain extenders, surfactants, and catalysts. Degradation may occur in the presence of high levels of tertiary amine catalysts and/or exposure to high temperatures (>100°C) for more than 24 hours. Avoid long term storage at elevated temperatures (>65°C) as well as repeated thermal cycling.

Regulatory

TSCA exempt under EPA polymer exemption, components are REACH registered or preregistered as appropriate.

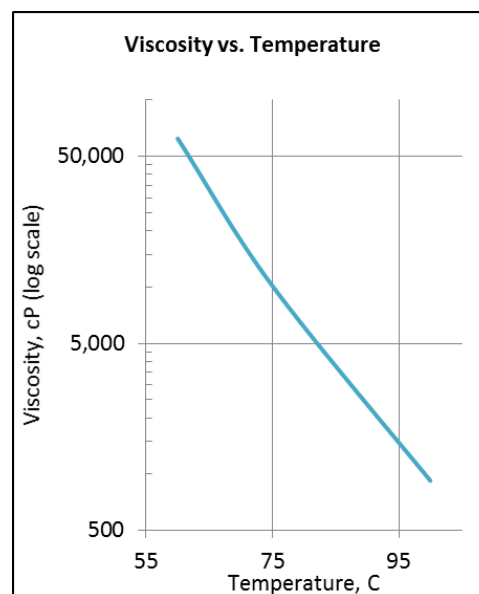
Packaging

Available in drums. Contact an Aramco Performance Materials representative for other sample sizes.

Typical Properties*

Functionality	2.0
Molecular Weight (g/mol)	1,000
Polydispersity Index	1.1
OH Number (mg KOH/g)	112
Density (g/mL)	1.2
Viscosity (cP at 75°C)	10,000
Acid Number (mg KOH/g)	< 0.5
Water Content (ppm)	< 1000
Color	yellow to amber
Appearance at 75°C	Clear Transparent Liquid

* these properties are presented as typical values and are not to be considered product specifications



Patent protected under US8,247,520 and CN102149746B, other patents pending