

CO₂nverge® Polyol 212-10 in DBE Solution

Description

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

Applications

Converge polyol 212-10 in DBE is a viscosity optimized blend 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

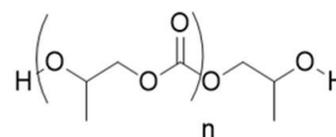
Converge polyol 212-10 in DBE can be utilized in existing urethane systems. The optimized blend allows for flowability at ambient conditions. It has excellent compatibility with polyester polyols and isocyanates. Compatibility with polyether polyols is low to moderate; it is recommended that polyether-based systems are cured shortly after polyol blending. Converge polyol 212-10 in DBE is compatible with 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 (>120°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.

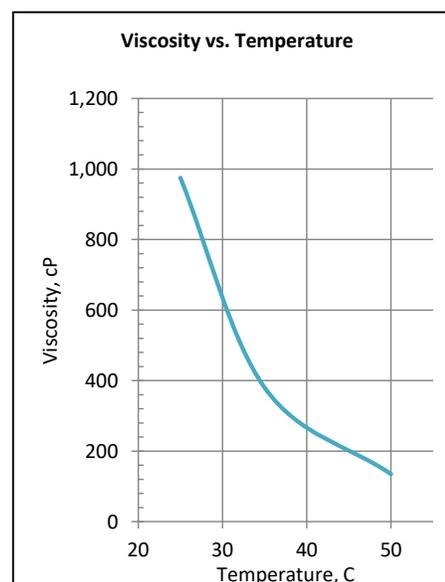
Packaging

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



Typical Properties*	
Polyol in DBE (wt%)	65
Functionality	2.0
Molecular Weight (g/mol)	1,000
Polydispersity Index	1.1
OH Number (mg KOH/g)	72
Density (g/mL)	1.2
Viscosity (cP at 75°C)	975
Acid Number (mg KOH/g)	< 0.5
Water Content (ppm)	< 500
Color	< 300

* 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

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