Version 1 (31/3/20)

ISOBLOC C12

NONYL PHENOL FREE BLOCKED PREPOLYMER

PRODUCT DESCRIPTION

Isobloc C12 is a highly flexible, low viscosity blocked TDI prepolymer. Based on a linear prepolymer, Isobloc C12 is more flexible than Isobloc C11. This product does not contain nonyl phenol and it is solvent free.

TYPICAL APPLICATIONS

Isobloc C12 can be used to increase the flexibility of epoxy systems. The properties of the epoxy system are maintained, whilst the brittleness of the epoxy system is reduced. Isobloc C12 can be cured at ambient temperatures with aliphatic or cycloaliphatic amines.

STORAGE, HANDLING AND PERSONAL PROTECTION

The recommendations in our Safety Data Sheet for this product must be followed at all times. More general information is included in our publication "A Guide to the Safe Handling of Polyurethane Resins".

This product has a shelf life of 6 months when stored at 25°C. Prolonged storage at elevated temperatures will result in a decreased shelf life.

Isobloc C12 does not contain monomeric isocyanates when stored at ambient temperatures.

TYPICAL PROPERTIES

As supplied the product has the following typical characteristics:

Viscosity @ 25°C, cPs	15,000 – 35,000
Appearance	Clear amber liquid
Calculated NCO Content, %	1.7 – 1.9
Calculated NCO Equivalent Weight	2210 - 2472
Calculated Epoxy Equivalent Weight	1105 - 1236
Solids content, %	>99.5
Specific Gravity, g/cm³	1.03 – 1.05

Isothane Limited, Newhouse Road, Huncoat Business Park, Accrington, Lancashire, BB5 6NT
Telephone +44(0)1254 872555 Fax +44(0)1254 871522
www.isothane.com info@isothane.com
Reg No 29752728

SOLUBILITY

Isobloc C12 has good compatibility with acetates, ketones, esters and aromatics. Only PU* grade solvents (<0.05% water) should be used. Isobloc C12 has a lower viscosity than traditional nonyl phenol based products, however a lower viscosity can be achieved by the addition of plasticisers, such as phthalates and adipates.

CURING AGENTS

The final properties are dependent on the choice of curing agent. For ambient cure, the best results are achieved with aliphatic or cycloaliphatic amines.

Polyurethane grade *solvents by definition must have a low content of active hydrogens, therefore alcohols and amines etc are not suitable along with other solvents containing > 0.05% water.

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