Product information

VESTANAT® T 1890/100

GENERAL DESCRIPTION

VESTANAT® T 1890/100 is a cycloaliphatic polyisocyanate based on isophorone diisocyanate (VESTANAT® IPDI). The basic structure is the isocyanurate ring, its NCO-functionality is between 3 and 4. VESTANAT® T 1890/100 is a solvent-free material, supplied as pellets. The melting range is appr. 110 °C.

SPECIFICATION

Property	Value	Unit	Test method*
NCO content	17.3 ± 0.3	% wt.	DIN EN ISO 11 909 / ASTM D 2572
IPDI-monomer	≤ 0.5	% wt.	DIN EN ISO 10 283

TYPICAL DATA

Property	Value	Unit	Test method
Melting range	110 – 115	°C	Kofler bar
Density at 20 °C	1.15	g/cm^3	-
Bulk density	600	kg/m^3	DIN ISO 171

PROPERTIES AND APPLICATIONS

This cycloaliphatic polyisocyanate is light-stable and non-yellowing. It has especially been developed as an isocyanate crosslinking agent for 2K PUR coatings or adhesives. VESTANAT® T 1890 is also supplied as 70 pbw. solutions in various solvents.

VESTANAT® T 1890/100 can also be used for the manufacture of blocked polyisocyanates or PUR resins like waterborne polyurethane dispersions (PUD).

VESTANAT® T 1890/100 is soluble in all types of conventional non-protic solvents (ketones, esters, aromatics, chlorinated hydrocarbons and white spirit). Solvents containing compounds able to react with isocyanates such as alcohols, amines and water must be avoided. The water content of any solvent used should be less than 0.05 %.

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DISSOLVING PROCEDURE (INDUSTRIAL SCALE)

The vessel to be used for the dissolving process should be made of stainless steel or enamelled. A closed system should be used, ventilated with nitrogen. Equipment for heating and cooling is required.

The solvent is charged, preheated to approx. 50 °C and approx. one third of the solid VESTANAT® T 1890/100 is added under stirring. The mixture is heated to approx. 80 °C within 30 minutes and the remainder of the VESTANAT® T 1890/100 is added in two portions under stirring.

Alternatively, if no stirring equipment is available, the solvent/solution can be circulated by pumping, the liquid entering the reactor at its base.

When the VESTANAT® T 1890/100 has been dissolved completely, the solution is cooled down to ambient temperature and filtered through a 10 µ filter (indicative figure: approx. 0.25 m2 of filter surface for a 10 m3 plant).

Filling into drums should be carried out under nitrogen. Before being filled, the drums should be checked for the presence of moisture.

STORAGE AND PACKAGING

VESTANAT® T 1890/100 can be stored in unopened containers for at least one year without loss of quality in accordance with the above specification.

VESTANAT® T 1890/100 is supplied in non returnable steel drums containing 125 kg (216 l).

SAFETY AND HANDLING

The product is used as raw material for the industrial manufacture of resins and hardeners for coating materials, adhesives, sealants and elastomers. The handling of such materials containing reactive polyisocyanates and residual monomeric diisocyanates requires appropriate protective measures. Therefore these products may be used only in industrial or professional applications. They are not suitable for use in homeworker (DIY) applications.

For further information on the safe handling of VESTANAT® T 1890/100 please refer to our Material Safety Data Sheet.

Marl, June 10, 2018; This data sheet replaces all former issues.

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