

NEUCONC T357 CON Series

Elastomers for the Concrete Mould Industry

TDI Prepolymers Cold Cure Systems

Published October 2023 Version 3

The Neuthane T357 Con series of TDI based prepolymers cure in combination with Neuthane CON curatives to give highly durable elastomers suitable for mould making. The finished elastomers offer:

- a high level of elasticity
- good tear resistance
- good abrasion resistance
- low process temperatures
- good dimensional stability

Typical Applications

Concrete Industry (e.g. moulds for decorative slabs and walls)
Model making

Processing can be carried out by hand or by dispensing machine

- Avoid moisture contamination of all materials. Part used containers should be flushed with dry nitrogen and resealed immediately after use
- It is vital to ensure that the curative component is completely liquid and thoroughly mixed prior to use
- Due to the exothermic nature of the system larger mixes will have a shorter pot life
- Allow longer demould times if curing sub ambient

Hand Processing

1. It is important the ambient curing conditions be at least 20°C.
2. Prior to casting, please ensure the polyol component is mixed thoroughly as it is a blend.
3. Bring all components to the recommended process temperature.
4. Add pigments and Antifoam (as applicable) to the polyol component whilst mixing
5. Add all components and thoroughly mix ensuring that no unmixed material is left on the container sides (if necessary, the mix can be transferred to a second clean container and mixed again).
6. If a vacuum facility is unavailable, please limit the amount of air entrapped during mixing.
7. Cast into moulds, preheated to the recommended temperature.
8. Cure as recommended.

Properties

- If cured at room temperature, then physicals will develop fully over a 7 day. Alternatively, a post-cure at 60-70°C for 4-8 hours can be employed.
- Depending upon system hardness and cure conditions the development of physicals may take longer. It is therefore advisable to assess tear strength before using the mouldings

NEUTHANE T357 CON – Polyurethane Elastomers for the Concrete Mould Industry (70 - 85 Shore A)

NEUTHANE GRADE			CURATIVE: NEUTHANE CON60	CURATIVE: NEUTHANE CA6
Recommended Stoichiometry		%	95	95
NEUTHANE T357 CON		by weight	100	100
Curative		by weight	80	14
Resin Temperature		°C	20 - 25	20 - 25
Curative Temperature		°C	20 - 25	20 - 25
Recommended Mould Temperature		°C	20 - 25	20 - 25
Viscosity @ 25°C	Resin	cPs	2500	2500
	Curative	cPs	750	460
Pot life (on a 500g mix)		minutes	15 - 20	10 - 15
Recommended Cure Temperature / Time		°C / Days	20- 25 / 7	20- 25 / 7
Demould Cure Time		Hours	24	24

Hardness	ISO 48-4	Shore A	70	85
	ISO 48-4	Shore D	-	-
100% Modulus	ISO 37	MPa (lb/in ²)	2.5 (370)	3.8 (552)
300% Modulus	ISO 37	MPa (lb/in ²)	-	-
Tensile Strength	ISO 37	MPa (lb/in ²)	10.0 (1500)	4.9 (708)
Elongation at Break	ISO 37	%	600	570
Tear (Die C)	ISO 34-1	kN/m (lbf/in)	44 (250)	44 (250)
Tear Trouser	ISO 34-1	kN/m	11.0	15.1
Specific Gravity		g / cm ³	1.10	1.10

Data above represents typical physical properties. Since conditions of use are beyond our control, no warranty is given or implied in respect of any recommendations or suggestions made by ourselves, nor is freedom from patent infringement inferred.

