

## NEUTHANE 335 CON Series

TDI Prepolymers Cold Cure Systems

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The NEUTHANE 335 CON series of TDI based prepolymers cure in combination with Neuthane 30 CON, 40 CON, 50 CON and 60 CON curatives to give highly durable elastomers suitable for mould making.

- 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 335 CON – TDI PREPOLYMERS COLD CURE SYSTEMS

NEUTHANE GRADE			30 CON	40 CON	50 CON	60 CON
NEUTHANE 335 CON		by weight	100	100	100	200
Curative, CON SERIES		by weight	200	150	100	100
Resin Temperature		°C	20 - 25	20 - 25	20 - 25	20 - 25
Curative Temperature		°C	20 - 25	20 - 25	20 - 25	20 - 25
Recommended Mould Temperature		°C	20 - 25	20 - 25	20 - 25	20 - 25
Viscosity @ 25°C	Resin	cPs	6400	6400	6400	6400
	Curative	cPs	430	570	650	750
Pot life (on a 500g mix)		minutes	30 -50	20-30	17-23	12-18
Recommended Cure Temperature / Time		°C / Days	25 / 7	25 / 7	25 / 7	25 / 7
Demould Cure Time		Hours	24	24	24	24

Hardness	ISO 48-4	Shore A	28-32	38-45	45-55	58-62
	ISO 48-4	Shore D				
100% Modulus	ISO 37	lb/in <sup>2</sup> (MPa)	90 (0.6)	116 (0.8)	190 (1.3)	205 (1.4)
300% Modulus	ISO 37	lb/in <sup>2</sup> (MPa)	-	-	-	-
Tensile Strength	ISO 37	lb/in <sup>2</sup> (MPa)	600 (4.0)	740 (5.1)	800 (5.5)	1160 (8.0)
Elongation at Break	ISO 37	%	1000	1000	1000	1000
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	90 (15.8)	100 (17.5)	150 (26.3)	200 (35.1)
Tear Trouser	ISO 34-1	kN/m	5.0	6.8	8.5	10.0
Specific Gravity		g / cm <sup>3</sup>	1.10	1.10	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.

