



Technical Data Sheet: Neuthane 801 C53 Series

MDI - PTMEG Ether Quasi Systems (Catalysed - 2 Component)

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Neuthane 801 - C53 Series (Catalysed 2 Component) MDI - PTMEG Ether Quasi System (60A- 60D)

Properties			Processing			Special Considerations		
<p>The Neuthane 801- C53 series are high performance MDI - PTMEG ether quasi systems designed to produce items for use in arduous application areas.</p> <p>They offer:</p> <ul style="list-style-type: none"> • a high level of physical properties • good dynamic performance • good hydrolysis resistance • high resilience • low viscosity • low process temperatures • two & three component forms <p>Typical Applications</p> <ul style="list-style-type: none"> • Wheels (e.g. fork truck, pallet truck and press on bands) • In-line roller blade wheels • Mining and quarrying (e.g. screen decks, scraper blades) • Hydrocyclones • Automotive (e.g. suspension bushes) • Roll covering 			<p>Processing can be carried out by hand or by dispensing machine.</p> <p>Hand Processing</p> <ul style="list-style-type: none"> • Melt ISO component at 30-40°C, POLYOL component at 50-60°C and BD at 60-70°C for 12-24 hours • Ensure components are completely liquid and thoroughly mixed prior to use • Bring all components to the recommended process temperature. • Add pigments and Antifoam (as applicable) to the polyol component whilst mixing • It is recommended that air be removed from the ISO component under vacuum prior to addition of the curative • 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) • Remove air under vacuum • Cast into moulds, preheated to the recommended temperature • Cure as recommended 			<p>Processing</p> <ul style="list-style-type: none"> • 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 both components are completely liquid and thoroughly mixed prior to use • Due to the exothermic nature of the system, larger mixes will have a shorter pot life <p>Alternatives</p> <ul style="list-style-type: none"> • Solvents - ester based systems should be considered: Neuthane 200 [TDI], Neuthane 700 [MDI prepolymer] or Neuthane 802 [MDI quasi] • Cost – Ester systems can be considered: Neuthane 700 [MDI prepolymer] or Neuthane 802 & 803 [MDI quasi] • Temperature – Neuthane 100 [TDI PTMEG] or Neuthane 500 [Aliphatic Isocyanate] based systems may be considered 		
COST	PROCESSING	ABRASION	DYNAMIC	RESILIENCE	SOLVENT	HUMID/WET	TEMPERATURE	UV STABILITY

Key

Excellent / Good

Good / Average

Average / Poor

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Neuthane Curative		801/60 C53	801/65 C53	801/70 C53	801/75 C53	801/80 C53
Mix Ratio Neuthane ISO NG	by weight	100	100	100	100	100
Mix Ratio Curative per 100 Parts ISO NG	by weight	171	152.5	143	128	100
Resin Temperature	°C	40	40	40	40	40
Curative Temperature	°C	40	40	40	40	40
Recommended Mould Temperature	°C	90	90	90	90	90
Viscosity @ 40°C (Curative/ISO)	cps	300/330	290/330	280/330	270/330	260/340
Pot life (500g mix)	minutes	6	6	6	6	5
Recommended Cure Temperature / Time	°C / hrs	70 / 16	70 / 16	70 / 16	70 / 16	70 / 16

Hardness	DIN 2240-91	Shore A	60	65	70	75	80
	DIN 2240-91	Shore D	-	-	-	-	-
100% Modulus	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	206 (1.4)	349 (2.4)	467 (3.2)	529 (3.65)	760 (5.24)
300% Modulus	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	318 (2.2)	659 (4.5)	938 (6.4)	1221 (8.4)	1929 (13.3)
Tensile Strength	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	1440 (9.9)	2371 (16.3)	3133 (21.6)	5714 (39.4)	5642 (38.9)
Elongation at Break	BS 903 Pt A2 - ISO 37	%	600	500	450	470	440
Tear Strength	BS 903 Pt A3 - ISO 34-1	lbf/in (KN/m)	147 (25.7)	180 (31.6)	257 (45.0)	326 (57.2)	398 (69.7)
Abrasion loss	DIN 53516	mm ³	50	50	50	50	50
Resilience	ASTM D 2632-92	%	61	57	52	46	38
Specific Gravity		g/cm ³					

Information contained in the data above is, to the best of our knowledge, true and accurate. 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.

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Neuthane		801/85 C53	801/90 C53	801/95 C53	801/55D C53	801/60D C53
Mix Ratio Neuthane ISO NG	by weight	100	100	100	100	100
Mix Ratio Curative per 100 Parts 801 ISO-NG	by weight	92	80	72	44	36
Resin Temperature	°C	40	40	40	40	40
Curative Temperature	°C	40	40	40	40	40
Recommended Mould Temperature	°C	90	90	90	90	90
Viscosity @ 40°C (ISO/Curative)	cps	250/330	250/330	250/330	240/330	240/330
Pot life (500g mix)	minutes	5	4	3	3	2
Recommended Cure Temperature / Time	°C / hrs	70 / 16	70 / 16	70 / 16	70 / 16	70 / 16

Hardness	DIN 2240-91	Shore A	85	90	95	-	-
	DIN 2240-91	Shore D	-	-	-	55	65
100% Modulus	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	1050 (7.24)	1350 (9.31)	1595 (11.0)		
300% Modulus	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	2553 (17.6)	3017 (20.8)	3321 (22.9)		
Tensile Strength	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	5990 (41.3)	5816 (40.1)	4626 (31.9)		
Elongation at Break	BS 903 Pt A2 - ISO 37	%	420	415	370		
Tear Strength	BS 903 Pt A3 - ISO 34-1	lbf/in (KN/m)	493 (86.4)	545 (95.5)	559 (98.0)		
Abrasion loss	DIN 53516	mm ³	50	50	50		
Resilience	ASTM D 2632-92	%	33	32	31		
Specific Gravity		g/cm ³					

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