



Technical Data Sheet: Neuthane 3100DV Series

MDI – PTMEG Ether Rotational Casting System

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Neuthane 3100DV - MDI - PTMEG Ether Rotational Casting System

Properties			Processing			Special Considerations		
<p>The Neuthane 3100DV series are high performance MDI – PTMEG ether rotational casting systems designed to produce roller coverings for use in arduous application areas.</p> <p>They offer:</p> <ul style="list-style-type: none"> • a high level of physical properties • very good dynamic performance • good hydrolysis resistance • non MOCA curatives • processing without moulds • room temperature curing <p>Typical Applications</p> <ul style="list-style-type: none"> • Steel mill rollers • paper mill rollers 			<p>Processing must be carried out by dispensing machine.</p> <p>Machine Dispensing</p> <ul style="list-style-type: none"> • Melt prepolymer at 50-70°C for 12-24 hours • Heat the prepolymer and curative to the recommended temperature • Ensure that the curative is thoroughly mixed prior to use (the storage tank on the machine should be fitted with agitation to prevent separation during use) • Degass to remove air • Adjust rotation and traverse speed until a smooth build up is achieved • Cure as recommended 			<p>Processing</p> <ul style="list-style-type: none"> • Avoid prolonged storage of prepolymers at elevated temperatures. This will result in low hardness and lower properties of the cured material • Avoid moisture contamination of all materials • Part used containers should be flushed with dry nitrogen and resealed immediately after use • To prevent de-lamination, subsequent layers should be applied within 30 minutes <p>Alternatives</p> <ul style="list-style-type: none"> • Solvents/Abrasion/Cut resistance - Ester based systems should be considered: Neuthane 3200 [MDI rotational casting] • Cost – Ester systems will offer cost savings: Neuthane 3200 [MDI rotational casting] PPG ether systems will also offer advantages [Neuthane 3300*] <p>* non standard products - details are available upon request</p>		
COST	PROCESSING	ABRASION	DYNAMIC	RESILIENCE	SOLVENT	HUMID/WET	TEMPERATURE	UV STABILITY

Key

Excellent / Good

Good / Average

Average / Poor

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Neuthane		3100DV
Curative		3193DV
Mix Ratio: Curative per 100 Parts Resin	by weight	72
Resin Temperature	°C	50
Curative Temperature	°C	25
Recommended Roller Temperature	°C	Room Temperature
Viscosity @ 50°C (N3100DV) <i>(Viscosity vs. Temp Graphs available on request)</i>	cps	1125
Pot life (on a 500g mix)	minutes	10-15
Recommended Cure Temperature / Time	°C / hrs	Room Temperature / 48

Hardness	DIN 2240-91	Shore A	93
	DIN 2240-91	Shore D	-
100% Modulus	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	2150 (14.8)
300% Modulus	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	6150 (42.35)
Tensile Strength	BS 903 Pt A2 - ISO 37	lb/in ² (Mpa)	6525 (44.93)
Elongation at Break	BS 903 Pt A2 - ISO 37	%	310
Tear Strength	BS 903 Pt A3 - ISO 34-1	lb/in (KN/m)	405 (70.9)
Compression Set	BS903 Pt A6 - ISO 815	%	
Abrasion loss	DIN 53516	mm ³	
Resilience	ASTM D 2632-92	%	
Specific Gravity		g/cm ³	1.09

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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