Technical Data Sheet: Neuthane 3100DV Series

MDI – PTMEG Ether Rotational Casting System

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QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001:2015

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Neuthane 3100DV - MDI - PTMEG Ether Rotational Casting System

Properties	Processing	Special Considerations
The Neuthane 3100DV series are high performance MDI – PTMEG ether rotational casting systems designed to produce roller coverings for use in arduous application areas. They offer: • a high level of physical properties • very good dynamic performance • good hydrolysis resistance • non MOCA curatives • processing without moulds • room temperature curing **Typical Applications** • Steel mill rollers • paper mill rollers	Processing must be carried out by dispensing machine. **Machine Dispensing** • 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	**Processing** • 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 **Alternatives** • ***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*] * non standard products - details are available upon request

COST	PROCESSING	ABRASION	DYNAMIC	RESILIENCE	SOLVENT	HUMID/WET	TEMPERATURE	UV STABILITY

Key Excellent / Good | Good / Average | Average / Poor

Neuthane 3100DV - MDI - PTMEG Ether Rotational Casting System

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) ***(Viscosity vs. Temp Graphs available on request)***	cps	1125
Pot life (on a 500g mix)	Seconds	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/in² (Mpa)	2150 (14.8)
300% Modulus	BS 903 Pt A2 - ISO 37	lb/in² (Mpa)	6150 (42.35)
Tensile Strength	BS 903 Pt A2 - ISO 37	lb/in² (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	mm³	-
Resilience	ASTM D 2632-92	%	-
Specific Gravity		g/cm³	1.09

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