

NEUTHANE 802NG with NEUTHANE CA 13 Series

MDI - Ester Quasi Systems (3 Component System)

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The NEUTHANE 802NG series are high performance series are high performance MDI - ester quasi systems designed to produce items for use in arduous application areas.

- a high level of physical properties
- good cut and abrasion resistance
- good chemical resistance
- higher levels of physical properties at low end of the hardness range compared to TDI systems
- low process temperatures

Typical Applications

Wheels (e.g. pallet truck)
Mining and quarrying (e.g. screen decks, scraper blades)
Oil and gas industry (e.g. gaskets, pipe pigs)
Automotive (e.g. suspension bushes)
Concrete Industry (e.g. moulds for decorative slabs and walls)

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 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

Hand Processing

1. Melt ISO component at 45°C- 55°C, POLYOL components at 55°C - 60°C for 12-24 hours.
2. Ensure components are completely liquid and thoroughly mixed prior to use
3. Bring all components to the recommended process temperature.
4. Add pigments and Antifoam (as applicable) to the polyol component whilst mixing
5. It is recommended that air be removed from the ISO component under vacuum prior to addition of the curative
6. 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)
7. Remove air under vacuum
8. Cast into moulds, preheated to the recommended temperature
9. Cure as recommended

Alternatives	Dynamic Resilience	Humid/Wet	Temperature
	- PTMEG ether-based systems should be considered	- PTMEG ether-based systems should be considered	- PTMEG ether-based systems should be considered
	NEUTHANE 100 [TDI], 600 [MDI], NEUTHANE 801 [Quasi]	NEUTHANE 100 [TDI], 600 [MDI], NEUTHANE 500 [Aliphatic]	NEUTHANE 100 [TDI], 600 [MDI], NEUTHANE 500 [Aliphatic]

NEUTHANE 802NG Bespoke Pre-Catalysed system options are available, tailored to your needs and requirements.

NEUTHANE 802NG Series with NEUTHANE CA13 (3 COMPONENT) MDI – Ester Quasi System (60A – 95A)

NEUTHANE GRADE		802/60 NG	802/65 NG	802/70 NG	802/75 NG
Mix Ratio N802 ISO-NG	by weight	100	100	100	100
Mix Ratio N802 POLYNG C53	by weight	196.4	167.8	148.4	125.3
Mix Ratio NEUTHANE CA13	by weight	6.7	7.9	8.7	9.7
NEUTHANE 802 ISO-NG Operating Temperature (OT)	°C	45	45	45	45
NEUTHANE 802 POLYNG C53 Operating Temperature (OT)	°C	55	55	55	55
NEUTHANE CA13 Operating Temperature (OT)	°C	45	45	45	45
NEUTHANE 802 ISO-NG Viscosity / SG (at OT)	cPs / g/cm ³	751 / 1.183	751 / 1.183	751 / 1.183	751 / 1.183
NEUTHANE 802 POLYNG C53 Viscosity / SG (at OT)	cPs / g/cm ³	1785 / 1.149	1785 / 1.149	1785 / 1.149	1785 / 1.149
NEUTHANE CA13 Viscosity / SG (at OT)	cPs / g/cm ³	30 / 1.04	30 / 1.04	30 / 1.04	30 / 1.04
Optimum Mould Temperature	°C	90-100	90 – 100	90 – 100	90 – 100
*Pot life (250g mix adjustable with Catalyst)	minutes	5 -7	5 -7	5 -7	5 -7
Recommended Cure Temperature / Time	°C / hrs	90 /16	90 /16	90 /16	90 /16

Hardness	ISO 48-4	Shore A	60	65	70	75
	ISO 48-4	Shore D	-	-	-	-
100% Modulus	ISO 37	lb/in ² (MPa)	265 (1.8)	360 (2.5)	464 (3.2)	582 (4.0)
300% Modulus	ISO 37	lb/in ² (MPa)	468 (3.2)	653 (4.5)	867 (6.0)	1114 (7.7)
Tensile Strength	ISO 37	lb/in ² (MPa)	4786 (33)	5207 (36)	4482 (31)	4656 (32)
Elongation at Break	ISO 37	%	712	658	605	550
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	269 (47)	337 (59)	378 (66)	423 (74)
Tear Trouser	ISO 34-1	lbf/in (kN/m)	132 (23)	132 (23)	172 (30)	137 (24)
Abrasion loss	ISO 4649	mm ³	<40	<40	<40	<40
Resilience	ASTM D 2632-92	%	54	52	50	47
Specific Gravity		g / cm ³	1.17	1.17	1.18	1.18

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. **Data collected with NEUTHANE CAT053, please contact Notedome to request a suitable catalyst recommendation according to your application



NEUTHANE 802NG Series with NEUTHANE CA13 (3 COMPONENT) MDI – Ester Quasi System (60A – 95A)

NEUTHANE GRADE		802/80 NG	802/85 NG	802/90 NG	802/95 NG
Mix Ratio N802 ISO-NG	by weight	100	100	100	100
Mix Ratio N802 POLYNG C53	by weight	92	78.3	61.6	46.1
Mix Ratio NEUTHANE CA13	by weight	11.1	11.6	12.3	13
NEUTHANE 802 ISO-NG Operating Temperature (OT)	°C	55	55	55	55
NEUTHANE 802 POLYNG C53 Operating Temperature (OT)	°C	45	45	45	45
NEUTHANE CA13 Operating Temperature (OT)	°C	45	45	45	45
NEUTHANE 802 ISO-NG Viscosity / SG (at OT)	cPs / g/cm ³	751 / 1.183	751 / 1.183	751 / 1.183	751 / 1.183
NEUTHANE 802 POLYNG C53 Viscosity / SG (at OT)	cPs / g/cm ³	1785 / 1.149	1785 / 1.149	1785 / 1.149	1785 / 1.149
NEUTHANE CA13 Viscosity / SG (at OT)	cPs / g/cm ³	30 / 1.04	30 / 1.04	30 / 1.04	30 / 1.04
Optimum Mould Temperature	°C	90 - 100	90 - 100	110	110
*Pot life (250g mix adjustable with Catalyst)	minutes	2-4	2-4	2-4	2-4
Recommended Cure Temperature / Time	°C / hrs	90 / 16	90 / 16	110 °C (0.5 h) + 90°C (16h)	110 °C (0.5 h) + 90°C (16h)

Hardness	ISO 48-4	Shore A	80	85	90	95
	ISO 48-4	Shore D	-	-	-	-
100% Modulus	ISO 37	lb/in ² (MPa)	837 (5.8)	914 (6.3)	1099 (7.6)	1407 (9.7)
300% Modulus	ISO 37	lb/in ² (MPa)	1581 (10.9)	1668 (11.5)	2306 (15.9)	2756 (19.0)
Tensile Strength	ISO 37	lb/in ² (MPa)	6251 (43.1)	6280 (43.3)	7281 (50.2)	8122 (56)
Elongation at Break	ISO 37	%	566	597	5300	570
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	521 (91)	526 (92)	572 (100)	601 (105)
Tear Trouser	ISO 34-1	lbf/in (kN/m)	194 (34)	206 (36)	194 (34)	240 (42)
Abrasion loss	ISO 4649	mm ³	<40	<40	<40	<40
Resilience	ASTM D 2632-92	%	43	40	36	35
Specific Gravity		g / cm ³	1.18	1.18	1.18	1.18

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