

NEUTHANE 801NG Series

MDI - PTMEG Ether Quasi Systems

Published November 2023 Version 3

The Neuthane 801NG series are high performance MDI - PTMEG ether quasi systems designed to produce items for use in arduous application areas.

- a high level of physical properties
- good dynamic performance
- good hydrolysis resistance
- high resilience
- low viscosity
- low process temperatures

Typical Applications

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

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 30-40°C, POLYOL component at 50-60° and NEUTHANE CA 14 at 40° 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	Solvents/Abrasion	- Ester based systems	NEUTHANE 200 [TDI], NEUTHANE 700 [MDI]
	Temperature	- PTMEG TDI or Aliphatic Isocyanate system	NEUTHANE 100 [TDI], NEUTHANE 500 [Aliphatic]

NEUTHANE 801NG Bespoke Pre-Catalysed system options are available, tailored to your needs and requirements.

NEUTHANE 801NG Series (3 COMPONENT) MDI - PTMEG Ether Quasi System (60A – 95A)

NEUTHANE GRADE		801/60NG	801/65NG	801/70NG	801/75NG
Mix Ratio NEUTHANE 801 ISO-NG	by weight	100	100	100	100
Mix Ratio NEUTHANE 801 POLY-NG UC	by weight	270.4	238.2	218.2	168.2
Mix Ratio NEUTHANE CA14	by weight	5.6	7.3	8.3	10.9
NEUTHANE 801ISO-NG Operating Temperature (OT)	°C	45	45	45	45
NEUTHANE 801POLY-NG Operating Temperature (OT)	°C	55	55	55	55
NEUTHANE CA14 Operating Temperature (OT)	°C	45	45	45	45
NEUTHANE 801ISO-NG Viscosity / SG (at OT)	cPs / g/cm ³	232 / 1.121	232 / 1.121	232 / 1.121	232 / 1.121
NEUTHANE 801POLY-NG Viscosity / SG (at OT)	cPs / g/cm ³	440 / 0.965	440 / 0.965	440 / 0.965	440 / 0.965
NEUTHANE CA14 Viscosity / SG (at OT)	cPs / g/cm ³	33 / 1.002	33 / 1.002	33 / 1.002	33 / 1.002
Recommended Mould Temperature	°C	90 - 100	90 - 100	90 - 100	90 - 100
Pot life (250g mix adjustable with Catalyst level)**	minutes	2-4	2-4	2-4	2-4
Recommended Cure Temperature / Time	°C / hrs	70 / 16	70 / 16	70 / 16	70 / 16

Hardness	ISO 48-4	Shore A	60	65	70	75
	ISO 48-4	Shore D	-	-	-	-
100% Modulus	ISO 37	lb/in ² (MPa)	290 (2.0)	304 (2.1)	377 (2.6)	536 (3.7)
300% Modulus	ISO 37	lb/in ² (MPa)	536 (3.7)	609 (4.2)	812 (5.6)	1174 (8.1)
Tensile Strength	ISO 37	lb/in ² (MPa)	1247 (8.6)	1595 (11.0)	2074 (14.3)	2610 (18)
Elongation at Break	ISO 37	%	437	425	411	446
Tear Strength	ISO 34-1	lbf/in (kN/m)	194 (33.9)	212 (37.0)	245 (42.8)	372 (65.0)
Resilience	ASTM D 2632-92	%	66	65	62	55

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 CAT044, please contact Notedome to request a suitable catalyst recommendation according to your application



NEUTHANE 801NG Series (3 COMPONENT) MDI - PTMEG Ether Quasi System (60A – 95A)

NEUTHANE GRADE		801/80NG	801/85NG	801/90NG	801/95NG
Mix Ratio NEUTHANE 801 ISO-NG	by weight	100	100	100	100
Mix Ratio NEUTHANE 801 POLY-NG UC	by weight	127.9	97.7	77.7	37.6
Mix Ratio NEUTHANE CA14	by weight	13.00	14.60	15.60	17.70
NEUTHANE 801ISO-NG Operating Temperature (OT)	°C	45	45	45	45
NEUTHANE 801POLY-NG Operating Temperature (OT)	°C	55	55	55	55
NEUTHANE CA14 Operating Temperature (OT)	°C	45	45	45	45
NEUTHANE 801ISO-NG Viscosity / SG (at OT)	cPs / g/cm ³	232 / 1.121	232 / 1.121	232 / 1.121	232 / 1.121
NEUTHANE 801POLY-NG Viscosity / SG (at OT)	cPs / g/cm ³	440 / 0.965	440 / 0.965	440 / 0.965	440 / 0.965
NEUTHANE CA14 Viscosity / SG (at OT)	cPs / g/cm ³	33 / 1.002	33 / 1.002	33 / 1.002	33 / 1.002
Recommended Mould Temperature	°C	90 - 100	90 - 100	90 - 100	90 - 100
Pot life (250g mix adjustable with Catalyst level)**	minutes	2-4	2-4	2-4	2-4
Recommended Cure Temperature / Time	°C / hrs	70 / 16	70 / 16	70 / 16	70 / 16

Hardness	ISO 48-4	Shore A	80	85	90	95
	ISO 48-4	Shore D	-	-	-	-
100% Modulus	ISO 37	lb/in ² (MPa)	768 (5.3)	1015 (7)	1392 (9.6)	2697 (18.6)
300% Modulus	ISO 37	lb/in ² (MPa)	1754 (12.1)	2074 (14.3)	2668 (18.4)	3843 (26.5)
Tensile Strength	ISO 37	lb/in ² (MPa)	2929 (20.2)	4641 (32)	4931 (34)	4235 (29.2)
Elongation at Break	ISO 37	%	403	493	471	359
Tear Strength	ISO 34-1	lbf/in (kN/m)	426 (74.5)	498 (87.0)	586 (102.5)	646 (113.0)
Resilience	ASTM D 2632-92	%	51	48	41	35

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 CAT044, please contact Notedome to request a suitable catalyst recommendation according to your application

