NEUTHANE 100 & 2100 Series

TDI - PTMEG Ether Prepolymers & TDI - PTMEG/PPG Ether Prepolymer

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TDI - PTMEG Ether Prepolymers

The NEUTHANE 100 series are high performance TDI – PTMEG ether prepolymers designed to produce items for use in arduous application areas.

- a high level of physical properties
- very good dynamic performance
- good hydrolysis resistance
- ease of use
- low viscosity
- choice of normal or long pot life grades
- hardness range from 70A-75D

Typical Applications

Wheels (e.g. fork truck, pallet truck and press on bands)
High load roller coverings (e.g. steel & paper industry)
Mining and quarrying (e.g. screen decks)
Hydrocyclones
Oil and gas industry (e.g. gaskets)
Automotive (e.g. suspension bushes)
Pipe-linings
Metal Finishing (e.g. vibration bowls)

Processing can be carried out by hand or by dispensing machine

- 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
- 'LV' grades available for certain hardness's allowing easier processing due to lower viscosity

Hand Processing

1. Melt prepolymer at 50-70°C for 12-24 hours (as a guide the grades with the lower NCO value will take longer to melt than those with higher NCO values)
2. Heat the prepolymer and curative to the recommended temperature
3. Add pigments and Antifoam, as applicable, whilst mixing
4. It is recommended that air be removed from the prepolymer under vacuum prior to addition of the curative
5. Add the curative 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)
6. Remove air under vacuum
7. Cast into moulds, preheated to the recommended temperature
8. Cure as recommended

Alternatives

Solvents/Abrasion	- Ester based systems	NEUTHANE 200 [TDI], NEUTHANE 700 [MDI]
Humid/Wet	- MDI or Aliphatic Isocyanate system	NEUTHANE 600 [MDI], NEUTHANE 500 [Aliphatic]
Resilience	-MDI based system	NEUTHANE 600HR series

NEUTHANE 100 Series TDI - PTMEG Ether Prepolymers (71 - 85 Shore A)

NEUTHANE GRADE		122	122	122MLV	128S	128S	128	128	132S	132S
%NCO (mid-point)	%	2.2	2.2	2.2	2.8	2.8	2.8	2.8	3.2	3.2
Curative		**MOCA**	**CA6**	**CA6**	**MOCA**	**CA6**	**MOCA**	**CA6**	**MOCA**	**CA6**
Recommended Stoichiometry	%	95	95	95	95	95	95	95	95	95
Mix Ratio Curative per 100 Parts Resin	by weight	6.6	5.3	5.3	8.5	6.8	8.5	6.8	9.7	7.7
Resin Temperature	°C	80	80	80	75	70 - 80	75	70 - 80	75	75
Curative Temperature	°C	110	20 -25	20 -25	110	20 -25	110	20 -25	110	20 -25
Recommended Mould Temperature	°C	90	90	90	90	90	90	90	90	90
Resin Viscosity (100°C / Process Temperature)	cPs	840 / 1350	840 / 1350	400 / 940	800 / 1202	1000/ 1205	920 / 1340	920 / 1340	420 / 980	420 / 980
Pot life (on a 500g mix)	minutes	15	12	10	18	12	13	7 1/2	17	6 1/2
Recommended Cure Temperature / Time	°C / hrs	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16

Hardness	ISO 48-4	Shore A	78	72	71	83	80	84	81	85	85
	ISO 48-4	Shore D	-	-	-	-	-	-	-	-	-
100% Modulus	ISO 37	lb/in² (MPa)	510 (3.5)	500 (3.4)	468 (3.2)	700 (4.8)	658 (4.5)	810 (5.6)	763 (5.3)	840 (5.8)	914 (6.3)
300% Modulus	ISO 37	lb/in² (MPa)	840 (5.8)	900 (6.2)	816 (5.6)	1340 (9.2)	1250 (8.6)	1450 (10.0)	1350 (9.3)	1600 (11)	1500 (10.3)
Tensile Strength	ISO 37	lb/in² (MPa)	4000 (27.6)	3700 (25.8)	2440 (16.8)	4150 (28.6)	3300 (22.8)	4500 (31.0)	4220 (29.1)	4200 (23.0)	2520 (17.4)
Elongation at Break	ISO 37	%	600	630	594	530	400	510	506	510	434
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	370 (64.8)	360 (63.0)	338 (59.3)	400 (70.1)	360 (63.0)	420 (73.5)	421 (73.6)	380 (66.5)	413 (72.5)
Compression Set	ISO 815-1	%	22	27	30	30	34	25	25	38	32
Abrasion loss	ISO 4649	mm³	32	52	12	48	13	38	10	59	25
Resilience	ASTM D 2632-92	%	59	62	68	54	62	63	65	46	58
Specific Gravity		g / cm³	1.05	1.05	1.03	1.06	1.01	1.06	1.02	1.07	1.05

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NEUTHANE 100 Series TDI - PTMEG Ether Prepolymers (85 - 92 Shore A)

NEUTHANE GRADE		132	132	143S	143S	143	143	150S	150S
%NCO (mid-point)	%	3.2	3.2	4.3	4.3	4.3	4.3	5.0	5.0
Curative		**MOCA**	**CA6**	**MOCA**	**CA6**	**MOCA**	**CA6**	**MOCA**	**CA6**
Recommended Stoichiometry	%	95	95	95	95	95	95	95	95
Mix Ratio Curative per 100 Parts Resin	by weight	9.7	7.7	13.0	10.4	13.0	13.0	15.1	12.1
Resin Temperature	°C	75	75	75	75	75	75	70	70
Curative Temperature	°C	110	20 -25	110	20 -25	110	20 - 25	110	20-25
Recommended Mould Temperature	°C	90	90	90	90	90	90	90	90
Resin Viscosity (100°C / Process Temperature)	cPs	770 / 1800	770 / 1800	430 / 1000	580 / 1000	430 / 2125	430 / 2125	250/ 750	250/ 750
Pot life (on a 500g mix)	minutes	11	4 1/2	12	10	7	5 1/2	9	4 1/2
Recommended Cure Temperature / Time	°C / hrs	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16	90/16	90/16

Hardness	ISO 48-4	Shore A	85	87	90	89	90	88	92	92
	ISO 48-4	Shore D	-	-	37	-	37	-	40	40
100% Modulus	ISO 37	lb/in² (MPa)	790 (5.5)	815 (5.6)	1260 (8.7)	1360 (9.4)	1320 (9.1)	1060 (7.3)	1510 (10.4)	1400 (9.7)
300% Modulus	ISO 37	lb/in² (MPa)	1600 (11)	1400 (9.7)	3000 (20.7)	2380 (16.4)	2950 (20.3)	1500 (10.3)	3100 (21.0)	2050 (14.1)
Tensile Strength	ISO 37	lb/in² (MPa)	5300 (36.6)	4030 (27.8)	6600 (45.5)	3940 (27.2)	6200 (42.7)	4830 (33.3)	6350 (43.8)	5110 (35.2)
Elongation at Break	ISO 37	%	530	519	410	394	400	612	420	496
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	470 (82.4)	503 (88.0)	500 (87.7)	440 (77.0)	510 (89.3)	566 (99.0)	510 (89.3)	561 (98.1)
Compression Set	ISO 815-1	%	29	28	30	34	29	46	30	49
Abrasion loss	ISO 4649	mm³	43	20	34	34	29	40	34	34
Resilience	ASTM D 2632-92	%	54	65	43	54	47	52	45	44
Specific Gravity		g / cm³	1.06	1.01	1.09	1.09	1.09	1.07	1.10	1.07

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NEUTHANE 100 Series TDI - PTMEG Ether Prepolymers (94 - 95 Shore A)

NEUTHANE GRADE		155S	155S	155	155	163S	163S	163
%NCO (mid-point)	%	5.5	5.5	5.5	5.5	6.3	6.3	6.3
Curative		**MOCA**	**CA6**	**MOCA**	**CA6**	**MOCA**	**CA6**	**MOCA**
Recommended Stoichiometry	%	95	95	95	95	95	95	95
Mix Ratio Curative per 100 Parts Resin	by weight	16.5	13.3	16.5	13.3	19.0	15.2	19.0
Resin Temperature	°C	70	70	70	70	70	70	70
Curative Temperature	°C	110	20 - 25	110	20 - 25	110	20 -25	110
Recommended Mould Temperature	°C	90	90	90	90	90	90	90
Resin Viscosity (100°C / Process Temperature)	cPs	250 / 860	250/ 860	280 / 890	250 / 890	270 / 600	270 / 600	270 / 600
Pot life (on a 500g mix)	minutes	7	3	5	3	5	5	3.5
Recommended Cure Temperature / Time	°C / hrs	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16	90 / 16

Hardness	ISO 48-4	Shore A	94	95	94	94	95	95	95
	ISO 48-4	Shore D	43	47	43	43	47	47	47
100% Modulus	ISO 37	lb/in² (MPa)	1730 (11.9)	1570 (10.8)	1820 (12.6)	1740 (12.0)	2250 (15.5)	2060 (14.2)	2210 (15.2)
300% Modulus	ISO 37	lb/in² (MPa)	4530 (31.2)	3360 (23.2)	4180 (28.8)	3540 (24.4)	5250 (36.2)	3700 (25.5)	5250 (36.2)
Tensile Strength	ISO 37	lb/in² (MPa)	6660 (45.9)	5820 (40.3)	6300 (45.9)	7000 (48.3)	6580 (45.4)	6700 (46.2)	6580 (45.4)
Elongation at Break	ISO 37	%	380	375	400	407	350	400	400
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	560 (98.0)	572 (100.4)	570 (99.8)	580 (101.8)	575 (100.6)	660 (115.5)	575 (100.6)
Compression Set	ISO 815-1	%	30	40	28	28	31	34	32
Abrasion loss	ISO 4649	mm³	34	50	31	30	36	53.5	36
Resilience	ASTM D 2632-92	%	47	47	44	45	44	42	47
Specific Gravity		g / cm³	1.11	1.07	1.11	1.08	1.12	1.06	1.12

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NEUTHANE 100LV Series – Low viscosity TDI – PTMEG Ether Prepolymers (80 Shore A – 75 Shore D)

NEUTHANE GRADE		128SLV	128SLV	128LV	141SLV	143SLV	143SLV	164LV	164LV	2192LV	2192LV
%NCO (mid-point)	%	2.8	2.8	2.8	4.1	4.3	4.3	6.7	6.7	9.2	9.2
Curative		**MOCA**	**CA6**	**CA6**	**CA6**	**MOCA**	**CA6**	**MOCA**	**CA6**	**MOCA**	**CA6**
Recommended Stoichiometry	%	95	95	95	95	95	95	95	95	95	95
Mix Ratio Curative per 100 Parts Resin	by weight	8.5	6.8	6.8	9.9	13.0	10.4	20.2	16.2	27.8	22.3
Resin Temperature	°C	75	75	75	75	75	75	65	65	55	55
Curative Temperature	°C	110	20-25	20 -25	20-25	110	20-25	110	20 -25	110	20 -25
Recommended Mould Temperature	°C	90	90	90	90	90	90	90	90	90	90
Resin Viscosity (100°C / Process Temperature)	cPs	350/1380	350 /1380	425 / 990	250 / 560	250 / 575	250 / 575	220/1300	220 / 1300	150/ 1185	160/ 1185
Pot life (on a 500g mix)	minutes	18	9	6	6	12	6	4	2.5	2	1.5
Recommended Cure Temperature / Time	°C / hrs	90 / 16	90/16	90 / 16	90/16	90 / 16	90/16	90 / 16	90 / 16	90 / 16	90 / 16

Hardness	ISO 48-4	Shore A	83	81	83	90	90	91	-	-	-	-
	ISO 48-4	Shore D	-	-	-	-	37	-	65	64	75	72
100% Modulus	ISO 37	lb/in² (MPa)	700 (4.8)	690 (4.8)	715 (5.0)	1360 (9.4)	1260 (8.7)	1010 (7.0)	4100 (27.6)	2680 (18.5)	5450 (37.5)	4100 (28.4)
300% Modulus	ISO 37	lb/in² (MPa)	1340 (9.2)	1170 (8.1)	1130 (8.0)	2380 (16.4)	2520 (17.4)	1850 (12.8)	6100 (42.0)	5178 (35.7)	-	-
Tensile Strength	ISO 37	lb/in² (MPa)	4150 (28.6)	2480 (17.1)	4910 (33.9)	3940 (27.2)	6400 (44.2)	4530 (31.3)	8100 (55.8)	7614 (52.5)	6150 (42.4)	6300 (43.6)
Elongation at Break	ISO 37	%	530	489	661	394	420	528	280	300	150	225
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	400 (70.1)	418 (73.3)	413 (72.5)	533 (93.5)	480 (84.0)	509 (89.0)	770 (135.0)	722.2 (127.0)	1050 (7.24)	900 (157.5)
Compression Set	ISO 815-1	%	30	34	29	37	31	35	21	-	90	-
Abrasion loss	ISO 4649	mm³	48	11	18	27	35	n.a	28	40	29	90
Resilience	ASTM D 2632-92	%	54	68	65	52	43	50	41	38	44	30
Specific Gravity		g / cm³	1.06	1.02	1.02	1.05	1.09	n.a	1.14	1.13	1.18	1.18

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NEUTHANE 100 Series

TDI - PTMEG/PPG Ether Prepolymers

The NEUTHANE 100 TDI - PTMEG / PPG ether prepolymers are designed to offer a good level of physical properties at a price advantage over pure TDI – PTMEG systems.

- a high level of physical properties
- very good dynamic performance
- good hydrolysis resistance
- ease of use
- low viscosity
- choice of normal or long pot life grades
- hardness range from 82A-95A

Typical Applications

Wheels (e.g. fork truck, pallet truck and press on bands)
Medium load roller coverings (e.g. conveyor rollers for the steel industry)
Mining and quarrying (e.g. scraper blades)

Processing can be carried out by hand or by dispensing machine

- 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
- The development of cure is longer than for pure PTMEG systems so in mould times may need to be extended. Rapid temperature changes during the early stages of cure may result in splits forming in large components.

Hand Processing

1. Melt prepolymer at 50-70°C for 12-24 hours
2. Heat the prepolymer and curative to the recommended temperature
3. Add pigments and Antifoam, as applicable, whilst mixing
4. It is recommended that air be removed from the prepolymer under vacuum prior to addition of the curative
5. Add the curative 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)
6. Remove air under vacuum
7. Cast into moulds, preheated to the recommended temperature
8. Cure as recommended

Alternatives

Solvents/Abrasion	- Ester based systems	NEUTHANE 200 [TDI], NEUTHANE 700 [MDI]
Humid/Wet	- MDI or Aliphatic Isocyanate system	NEUTHANE 600 [MDI], NEUTHANE 500 [Aliphatic]
Resilience	-PTMEG MDI based system	NEUTHANE 600HR series

NEUTHANE 100 Series – TDI - PTMEG/PPG Ether Prepolymers (82 - 95 Shore A)

NEUTHANE GRADE		127	127	142	142	153	162
%NCO (mid-point)	%	2.85	2.85	4.3	4.3	5.5	6.3
Curative		**MOCA**	**CA6**	**MOCA**	**CA6**	**MOCA**	**MOCA**
Recommended Stoichiometry	%	95	95	95	95	95	95
Mix Ratio Curative per 100 Parts Resin	by weight	8.6	6.9	13.0	10.5	16.6	19.0
Resin Temperature	°C	70	70	70	70	70	65
Curative Temperature	°C	110	20-25	110	20 -25	110	110
Recommended Mould Temperature	°C	90	90	90	90	90	90
Resin Viscosity (100°C / Process Temperature)	cPs	475 /1120	475 /1120	285 / 923	275 / 923	170 /715	140 / 629
Pot life (on a 500g mix)	minutes	10	8	10	7	8	4.5
Recommended Cure Temperature / Time	°C / hrs	90 / 16	90 / 16	90 / 16	90/16	90 / 16	90/ 16

Hardness	ISO 48-4	Shore A	82	80	90	88	93	95
	ISO 48-4	Shore D	-	-	-	-	-	-
100% Modulus	ISO 37	lb/in² (MPa)	640 (4.4)	637 (4.4)	1150 (7.9)	1060 (7.3)	1630 (11.2)	1900 (13.1)
300% Modulus	ISO 37	lb/in² (MPa)	1000 (6.9)	940 (6.5)	2180 (15.0)	1580 (10.9)	3470 (23.9)	4720 (32.5)
Tensile Strength	ISO 37	lb/in² (MPa)	3500 (24.1)	3370 (23.2)	5050 (34.8)	3740 (25.7)	5990 (41.3)	6000 (41.4)
Elongation at Break	ISO 37	%	700	792	450	508	390	340
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	380 (66.5)	376 (65.7)	400 (70.1)	36 (6.3)	430 (75.3)	460 (80.8)
Compression Set	ISO 815-1	%	32	23	39	52	42	41
Abrasion loss	ISO 4649	mm³	55	63	55	101	61	70
Resilience	ASTM D 2632-92	%	54	53	40	33	32	39
Specific Gravity		g / cm³	1.06	1.03	1.09	1.07	1.12	1.12

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NEUTHANE 100 Series

TDI - PTMEG Ether Prepolymers with NEUTHANE CA2

The NEUTHANE 100 TDI - PTMEG ether prepolymers cured with NEUTHANE CA2 improves dynamics and load carrying properties.

- a high level of physical properties
- very good dynamic performance
- higher load bearing
- extend operating temp range vs MBOCA or NEUTHANE CA6. -Customer to confirm suitability in applications
- good hydrolysis resistance
- ease of use

Typical Applications

Wheels (e.g. fork truck, pallet truck and press on bands)
Medium load roller coverings (e.g. conveyor rollers for the steel industry)
Mining and quarrying (e.g. scraper blades)

Processing can be carried out by hand or by dispensing machine

- 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
- The development of cure is longer than for pure PTMEG systems so in mould times may need to be extended. Rapid temperature changes during the early stages of cure may result in splits forming in large components.

Hand Processing

9. Melt prepolymer at 50-70°C for 12-24 hours
10. Heat the prepolymer and curative to the recommended temperature
11. Add pigments and Antifoam, as applicable, whilst mixing
12. It is recommended that air be removed from the prepolymer under vacuum prior to addition of the curative
13. Add the curative 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)
14. Remove air under vacuum
15. Cast into moulds, preheated to the recommended temperature
16. Cure as recommended

Alternatives

Solvents/Abrasion	- Ester based systems	NEUTHANE 200 [TDI], NEUTHANE 700 [MDI]
Humid/Wet	- MDI or Aliphatic Isocyanate system	NEUTHANE 600 [MDI], NEUTHANE 500 [Aliphatic]
Resilience	-PTMEG MDI based system	NEUTHANE 600HR series

NEUTHANE 100 Series – TDI - PTMEG Ether Prepolymers (cured with NEUTHANE CA2)

NEUTHANE GRADE		132	143S	155	163S
%NCO (mid-point)	%	3.2	4.3	5.5	6.3
Curative		**CA2**	**CA2**	**CA2**	**CA2**
Recommended Stoichiometry	%	95	95	95	95
Mix Ratio Curative per 100 Parts Resin	by weight	13.7	18.5	23.6	27.0
Resin Temperature	°C	70	70	70	70
Curative Temperature	°C	110	110	110	110
Recommended Mould Temperature	°C	90	90	90	90
Resin Viscosity (100°C / Process Temperature)	cPs	770 / 1800	430 / 1000	250/ 860	270 / 600
Pot life (on a 500g mix)	minutes	1-2	1-2	1-2	1-2
Recommended Cure Temperature / Time	°C / hrs	90 / 16	90 / 16	90 / 16	90 / 16

Hardness	ISO 48-4	Shore A	90	96	95	97
	ISO 48-4	Shore D	-	-	-	-
100% Modulus	ISO 37	lb/in² (MPa)	1190 (8.0)	1700 (11.7)	2250 (15.5)	2570 (17.7)
300% Modulus	ISO 37	lb/in² (MPa)	1900 (13.0)	2690 (18.6)	3770 (26.0)	6050 (41.7)
Tensile Strength	ISO 37	lb/in² (MPa)	5270 (37.0)	6630 (45.7)	6730 (49.0)	7740 (53.4)
Elongation at Break	ISO 37	%	474	447	410	349
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	583 (102)	652 (114)	590 (104)	695 (122)
Compression Set	ISO 815-1	%	26	35	26	38
Abrasion loss	ISO 4649	mm^3	35	37	27	57
Resilience	ASTM D 2632-92	%	62	54+	49	43
Specific Gravity		g / cm^3	1.02	1.07	1.11	1.07

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NEUTHANE 2100 Series

TDI - PTMEG Ether Prepolymers

Reduced Free TDI levels**

The NEUTHANE 2100 series are reduced Free TDI levels when compared to standard NEUTHANE 100 series grades, with high performance TDI – PTMEG ether prepolymers are designed to produce items for use in arduous application areas.

- a high level of physical properties
- very good dynamic performance
- good hydrolysis resistance
- ease of use
- low viscosity
- harness range from 85A-47D**

** Lower hardness can be obtained with NEUTHANE CA curatives grades. (Details available upon request)

Typical Applications	Wheels (e.g. fork truck, pallet truck and press on bands)
	High load roller coverings (e.g. steel & paper industry)
	Mining and quarrying (e.g. screen decks, pipe lining)
	Hydrocyclones
	Oil and gas industry (e.g. gaskets)
	Automotive (e.g. suspension bushes)
	Metal Finishing (e.g. vibration bowls)

Processing can be carried out by hand or by dispensing machine

- 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

Hand Processing

1. Melt prepolymer at 50-70°C for 12-24 hours
2. Heat the prepolymer and curative to the recommended temperature
3. Add pigments and Antifoam, as applicable, whilst mixing
4. It is recommended that air be removed from the prepolymer under vacuum prior to addition of the curative
5. Add the curative 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)
6. Remove air under vacuum
7. Cast into moulds, preheated to the recommended temperature
8. Cure as recommended

Alternatives	Solvents/Abrasion	- Ester based systems	NEUTHANE 200 [TDI], NEUTHANE 700 [MDI]
	Humid/Wet	- MDI or Aliphatic Isocyanate system	NEUTHANE 600 [MDI], NEUTHANE 500 [Aliphatic]
	Resilience	-PTMEG MDI based system	NEUTHANE 600HR series

**Compared to the standard NEUTHANE 100 series PTMEG-TDI grades

NEUTHANE 2100 Series – TDI - PTMEG Ether Prepolymers - (85 Shore A - 50 Shore D)

NEUTHANE GRADE		2132	2132	2132	2143	2143	2155	2155	2163	2163
%NCO (mid-point)	%	3.2	3.2	3.2	4.3	4.3	5.5	5.5	6.3	6.3
Curative		**MOCA**	**CA6**	**CA2**	**MOCA**	**CA6**	**MOCA**	**CA6**	**MOCA**	**CA6**
Recommended Stoichiometry	%	95	95	95	95	95	95	95	95	95
Mix Ratio Curative per 100 Parts Resin	by weight	9.7	7.7	13.7	13.0	10.4	16.6	13.3	19.0	15.3
Resin Temperature	°C	70	70	70	70	70	70	70	70	70
Curative Temperature	°C	110	110	110	110	20-25	110	20-25	110	20-25
Recommended Mould Temperature	°C	90	90	90	90	90	90	90	90	90
Resin Viscosity (100°C / Process Temperature)	cPs	670 / 1345	670 / 1345	670 / 1345	430 / 1146	430 / 1146	210/643	210/643	250 / 675	250 / 675
Pot life (on a 500g mix)	minutes	17	3	1-2	10	5	7	5	5	3
Recommended Cure Temperature / Time	°C / hrs	90 / 16	90 / 16	90 / 16	90 / 16	90/16	90 / 16	90/16	90 / 16	90/16

Hardness	ISO 48-4	Shore A	85	84	**90**	90	91	94	94	95	97
	ISO 48-4	Shore D	-	-	-	37	38	43	43	47	50
100% Modulus	ISO 37	lb/in² (MPa)	915 (6.3)	803 (5.5)	1204 (8.3)	1320 (9.1)	1300 (9.0)	1850 (12.8)	1590 (11.0)	2660 (18.4)	2010 (13.9)
300% Modulus	ISO 37	lb/in² (MPa)	1730 (11.9)	1340 (9.2)	1827 (12.6)	2250 (15.5)	2410 (16.6)	400 (27.6)	3130 (21.6)	5810 (40.0)	4590 (31.6)
Tensile Strength	ISO 37	lb/in² (MPa)	5650 (38.9)	3010 (20.8)	5120 (35.3)	6910 (47.7)	4540 (31.3)	6970 (48.1)	5220 (36.0)	7100 (49.0)	5810 (40.0)
Elongation at Break	ISO 37	%	490	500	467	400	390	380	377	380	342
Tear (Die C)	ISO 34-1	lbf/in (kN/m)	450 (78.9)	408 (71.3)	525 (91.7)	490 (85.6)	525 (92.1)	450 (78.9)	537 (93.9)	610 (106.9)	590 (103.5)
Compression Set	ISO 815-1	%	30	27	24	31	29	30	45	28	44
Abrasion loss	ISO 4649	mm^3	40	41	35	34	43	35	45	41	55
Resilience	ASTM D 2632-92	%	55	60	56	44	46	47	45	44	50
Specific Gravity		g / cm^3	1.06	1.05	1.03	1.10	1.06	1.11	1.07	1.12	1.07

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