

# TM400-T SERIES

## TECHNICAL DATASHEET

Geomembrane (GMB) type	Textured/textured (T)
Composition	High density polyethylene (HDPE)
Main function	Impermeabilisation

Property	Test Method	Unit	Frequency <sup>(1)</sup>	TM430-T	TM440-T	TM460-T	TM480-T	TM4-100-T
<b>Physical</b>								
Nominal thickness	-	mm	-	0.75 (30 mils)	1.00 (40 mils)	1.50 (60 mils)	2.00 (80 mils)	2.50 (100 mils)
Thickness (min. avg.)	ASTM D5199	mm	Every roll	0.71	0.95	1.43	1.90	2.38
Lowest individual 8/10 values	ASTM D5594	mm	Every roll	0.68	0.90	1.35	1.80	2.25
Lowest individual 10/10 values	ASTM D5594	mm	Every roll	0.64	0.85	1.28	1.70	2.13
Asperity height (min. avg.)	ASTM D7466	mm	Every roll	0.4	0.4	0.4	0.4	0.4
Resin density	ASTM D1505	g/cc	1/batch	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932
Sheet density <sup>(2)</sup>	ASTM D792	g/cc	Every 10 rolls	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940
Carbon black content <sup>(3)</sup>	ASTM D4218	%	Every 2 rolls	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0	2.0 - 3.0
Carbon black dispersion	ASTM D5596	Category	Every 10 rolls	Cat. 1 / Cat. 2	Cat 1. / Cat. 2	Cat. 1 / Cat. 2	Cat. 1 / Cat. 2	Cat 1. / Cat. 2
OIT - standard (avg.)	ASTM D3895	min	Formulation	100	100	100	100	100
<b>Mechanical</b>								
Stength at yield <sup>(4)</sup>	ASTM D6693	kN/m	Every 2 rolls	11.6	15	23	31	39
Elongation at yield <sup>(4)</sup>	ASTM D6693	%	Every 2 rolls	12	12	13	13	13
Stength at break <sup>(4)</sup>	ASTM D6693	kN/m	Every 2 rolls	12	15	23	31	39
Elongation at break <sup>(4)</sup>	ASTM D6693	%	Every 2 rolls	150	150	150	150	150
Tear resistance <sup>(4)</sup>	ASTM D1004	N	Every 5 rolls	100	135	200	265	335
Puncture resistance <sup>(4)</sup>	ASTM D4833	N	Every 5 rolls	300	400	535	675	800
Dimensional stability	ASTM D1204	%	Certified	± 2	± 2	± 2	± 2	± 2
Stess crack resistance (SP-NCTL)	ASTM D5397	hr	1/batch	500	500	500	500	500
Oven aging - % retained 90 days HP-OIT <sup>(4)</sup>	ASTM D5721 ASTM D5885	%	Formulation	80	80	80	80	80
UV resistance-% retained 1600h HP-OIT <sup>(4)</sup>	GRI -GM11 ASTM D5885	%	Formulation	50	50	50	50	50
<b>Dimensions (may vary ± 1%)</b>								
Width X length	N/A	m	-	6.80 X 304.8	6.80 X 237.7	6.80 X 164.6	6.80 X 128.0	6.80 X 97.5

This technical informations comes from the manufacturer and was transcribed by Texel.

All values are nominal test results, except when specified.

1-Testing frequency based on standard roll dimensions and one batch is approximately 18,000 lbs (or one railcar). / 2 - ASTM D1505 and ASTM D792 give the same results /

3 - ASTM D1603 and ASTM D4218 give the same results / 4 - Minimum average value on the basis of 5 specimens each direction (MD & TD)

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