

TM400i SERIES

TECHNICAL DATASHEET

Geomembrane (GMB) type	Smooth
Composition	High density polyethylene (HDPE)
Main function	Impermeabilisation

Property	Test Method	Unit	Frequency ⁽¹⁾	TM430i	TM440i	TM460i	TM480i	TM4-100i
Physical								
Thickness (min. avg.)	ASTM D5199	mils	Every roll	30.0	40.0	60.0	80.0	100.0
Thickness (min.)	ASTM D5199	mils	Every roll	27.0	36.0	54.0	72.0	90.0
Resin density	ASTM D1505	g/cc	1/batch	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932
Melt index-190/2.16 (max.)	ASTM D1238	g/10 min	1/batch	1.0	1.0	1.0	1.0	1.0
Sheet density ⁽²⁾	ASTM D742	g/cc	Every 10 rolls	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940	≥ 0.940
Carbon black content ⁽³⁾	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
Mechanical								
Stength at yield ⁽⁴⁾	ASTM D6693	ppi	Every 2 rolls	66	84	132	176	220
Elongation at yield ⁽⁴⁾	ASTM D6693	%	Every 2 rolls	13	13	13	13	13
Stength at break ⁽⁴⁾	ASTM D6693	ppi	Every 2 rolls	122	162	243	324	405
Elongation at break ⁽⁴⁾	ASTM D6693	%	Every 2 rolls	700	700	700	700	700
Tear resistance ⁽⁴⁾	ASTM D1004	lbf	Every 5 rolls	21	42	42	56	70
Puncture resistance ⁽⁴⁾	ASTM D4833	lbf	Every 5 rolls	60	80	120	156	180
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 ⁽⁴⁾	ASTM D5721 ASTM D5885	%	Formulation	80	80	80	80	80
UV resistance-% retained 1600h HP-OIT ⁽⁴⁾	GRI -GM11 ASTM D5885	%	Formulation	50	50	50	50	50
Dimensions (may vary ± 1%)								
Width X length	-	ft	-	22.3 X 1000	22.3 X 780	22.3 X 520	22.3 X 400	22.3 X 320

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

All values are nominal test results, except when specified as minimum or maximum.

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)