

TM400i-ST SERIES

TECHNICAL DATASHEET

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

Property	Test Method	Unit	Frequency ⁽¹⁾	TM430i-ST	TM440i-ST	TM460i-ST	TM480i-ST	TM4-100i-ST
Physical								
Nominal thickness	-	mils	-	30.0	40.0	60.0	80.0	100.0
Thickness (min. avg.)	ASTM D5199	mils	Every roll	28.5	38.0	57.0	76.0	95.0
Lowest individual 8/10 values	ASTM D5594	mils	Every roll	27.0	36.0	54.0	72.0	90.0
Lowest individual 10/10 values	ASTM D5594	mils	Every roll	25.5	34.0	51.0	68.0	85.0
Asperity height (min. avg.)	ASTM D7466	mils	Every roll	16	16	16	16	16
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 D792	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	88	132	176	220
Elongation at yield ⁽⁴⁾	ASTM D6693	%	Every 2 rolls	12	13	13	13	13
Stength at break ⁽⁴⁾	ASTM D6693	ppi	Every 2 rolls	66	88	132	176	220
Elongation at break ⁽⁴⁾	ASTM D6693	%	Every 2 rolls	150	150	150	150	150
Tear resistance ⁽⁴⁾	ASTM D1004	lbf	Every 5 rolls	23	30	45	60	75
Puncture resistance ⁽⁴⁾	ASTM D4833	lbf	Every 5 rolls	68	90	120	152	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	ASTM D5721	%	Formulation	80	80	80	80	80
HP-OIT ⁽⁴⁾	ASTM D5885	%	Formulation	50	50	50	50	50
UV resistance-% retained 1600h	GRI -GM11	%	Formulation	50	50	50	50	50
HP-OIT ⁽⁴⁾	ASTM D5885	%	Formulation	50	50	50	50	50
Dimensions (may vary ± 1%)								
Width X length	N/A	ft	N/A	22.3 X 1000	22.3 X 780	22.3 X 560	22.3 X 440	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)

Texel reserves the right to modify existing properties contingent on the evolution of technical knowledge. Each user is invited to verify if this document represents the most recent update. Texel offers no guarantee and assumes no responsibility regarding usage, installation and/or convenience of usage. Texel must be informed of all product defects or product nonconformity prior to installation. Responsibility is limited to replacement of non-compliant or defective product.