

TECHNICAL DATA SHEET

TM400 SERIES



Product	Smooth geomembrane							
Composition	High density polyethylene (HDPE)							
Main Function	Impermeabilisation							
Property	Test Method	Unit	Frequency ⁽¹⁾	Texel TM430	Texel TM440	Texel TM460	Texel TM480	Texel TM4-100
Physical								
Thickness (min. avg.)	ASTM D5199	mm	Every roll	0.75 (30 mils)	1.00 (40 mils)	1.50 (60 mils)	2.00 (80 mils)	2.50 (100 mils)
Thickness (min.)	ASTM D5199	mm	Every roll	0.68	0.90	1.35	1.80	2.25
Resin density	ASTM DI 505	g/cc	1 /batch	> 0.932	> 0.932	> 0.932	> 0.932	> 0.932
Melt index-190/2.16 (max .)	ASTM DI238	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				
Carbon black content ⁽³⁾	ASTM D4218	%	Every 2 rolls	2.0- 3.0				
Carbon black dispersion	ASTM D5596	Category	Every 10 rolls	Cat. 1 / Cat. 2				
OIT - standard (avg.)	ASTM D3895	min	Formulation	100				
Mechanical								
Strength at yield ⁽⁴⁾	ASTM D6693	kN/m	Every 2 rolls	11.6	15	23	31	39
Elongation at yield ⁽⁴⁾	ASTM D6693	%	Every 2 rolls	13				
Strength at break ⁽⁴⁾	ASTM D6693	kN/m	Every 2 rolls	21	28	43	57	71
Elongation at break ⁽⁴⁾	ASTM D6693	%	Every 2 rolls	700				
Tear resistance ⁽⁴⁾	ASTM DI004	N	Every 5 rolls	93	125	187	250	311
Puncture resistance ⁽⁴⁾	ASTM D4833	N	Every 5 rolls	267	356	534	695	800
Dimensional stability	ASTM DI204	%	Certified	±2				
Stress crack resistance (SP-NCTL)	ASTM D5397	hr	1 /batch	500				
Oven aging - % retained 90 days HP-OIT ⁽⁴⁾	ASTM D5721 ASTM D5885	%	Formulation	80				
UV resistance-% retained 1600h HP-OIT ⁽⁴⁾	GRI -GM11 ASTM D5885	%	Formulation	50				
Dimensions (may vary ± 1%)								
Width X length	-	m	-	6.80 X 304.8	6.80 X 237.7	6.80 X 158.5	6.80 X 121.9	6.80 X 97.5

This technical information 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 DI505 and ASTM D792 give the same results /

3- ASTM DI603 and ASTM D4218 give the same results / 4- Minimum average value on the basis of 5 specimens each direction (MD & TD)

Revision : 2017-03-07

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 nonconformity prior to installation. Responsibility is limited to replacement of non-compliant or defective product.

