



Tech 5[®] and Tech 10[®] Geomembrane



Tech 5 and **Tech 10** Geomembranes made by Plastatech[®] Engineering, Ltd. help shield the environment against harsh chemicals and other pollutants commonly found in landfills, reservoirs, chemical processing plants, refineries, manufacturing facilities, and water treatment operations.

Tech 5 and **Tech 10** are reinforced with a high-tenacity, non-wicking, polyester scrim that provides exceptional dimensional stability, puncture strength, and long-term durability. **Tech 5** and **Tech 10** meet the challenges found in irregularly contoured areas and high stress applications requiring protective barriers. **Tech 5** and **Tech 10** can be easily installed in exposed work sites.

Applications:

- Waste water containment
- Secondary containment
- Secondary lining
- Landfill covers
- Containment ponds

In independent lab testing conducted by TRI/ Environmental, Inc., **Tech 5** and **Tech 10** consistently exceeded industry specifications for these characteristics: breaking strength, tear strength, hydrostatic resistance, adhesion, puncture resistance, UV resistance, and flexibility.

Our proprietary process and adhesive formulation deliver a covalent bond between the high thread count scrim and the films, thus creating a non-separable, long-lasting adhesion that will not delaminate.

CHEMICAL	EFFECT	CHEMICAL	EFFECT
ASTM Fuel A	C	Chlorine Bleach	C
Diesel Fuel	C	Methyl Ethyl Ketone (MEK)	I
Gasoline	M	Toluene	I
Jet Fuel	C	Xylene	I
Kerosene	C	Tetrahydrofuran (THF)	I
Crude Oil	C	Mineral Spirits	C
Motor Oil	C	Hydrochloric Acid (20%)	C
Hydraulic Oil	C	Sulfuric Acid (20%)	C
Corn Oil	C	Phosphoric Acid	C
Methanol	C	Distilled Water	C
Ethanol	C	Deionized Water	C
Isopropyl Alcohol	C	Municipal Water	C
Ethyl Glycol	C	Sea Water	C
Heptane	C	Waste Water	C

Key: C = Compatible M = Moderately Compatible I = Incompatible



TEST	METHOD	UNITS	TARGET	TYPICAL VALUE
Fabric Weight	ASTM D3776	oz/yd ²	5.0	5.0
Finished Weight	ASTM D751	oz/yd ²	30.0	29.9
Thickness	ASTM D751	mil	30	36/37
Break Strength	ASTM D751	lb _f /in.	250/200	450/390
Tear Strength	ASTM D4533	lb _f	30/30	94/68
Low Temp. Resistance	ASTM D2136 1/8" mandrel	-25°F	Pass	Pass
Dimensional Stability	ASTM D1204	%	1	-0.7/0.03
Hydrostatic Resistance	ASTM D751 Procedure A	psi	300	>660
Blocking Resistance	ASTM D751	180°F (#2 rating)	Pass	Pass
Adhesion	ASTM D751	lb _f /in.	> 10	Not Separable
Adhesion Heat-Welded Seam	ASTM D751	lb _f /in.	>30	> 90
Bonded Seam Strength	ASTM D751	lb _f	250	290
Abrasion Resistance	Tabor 5305	50 mg/100 cycles	Pass	Pass
		2,000 cycles	No exposure	Pass
Weathering Resistance	QUV	hrs.	11,000 No Cracking No Blistering	11,000
Water Extraction	ASTM D3083	%	< 0.5	< 0.25
Wicking		in.	< 0.25	Pass
Bursting Strength	ASTM D751	psi	300	660
Puncture Resistance	ASTM D4833	lb _f	150	> 180
Coefficient of Thermal Expansion	ASTM D696	mm/mm°C	1.4 x 10 ⁻⁵	MD 1.3 x 10 ⁻⁵
Tongue Tear	ASTM D751	lb _f	50	105/81

TEST	METHOD	UNITS	TARGET	TYPICAL VALUE
Fabric Weight	ASTM D3776	oz/yd ²	8.0	8.0
Finished Weight	ASTM D751	oz/yd ²	38.0	37
Thickness	ASTM D751	mil	40	45.0
Break Strength	ASTM D751	lb _f /in.	550/550	610/605
Tear Strength	ASTM D4533	lb _f	35/35	140/110
Low Temp. Resistance	ASTM D2136 1/8" mandrel	-30°F	Pass	Pass
Dimensional Stability	ASTM D1204	%	1.5	-0.58/0.02
Hydrostatic Resistance	ASTM D751 Procedure A	psi	800	> 1,000
Blocking Resistance	ASTM D751	180°F (#2 rating)	Pass	Pass
Adhesion	ASTM D751	lb _f /in.	> 15	Not Separable
Adhesion Heat-Welded Seam	ASTM D751	lb _f /in.	>35	109
Bonded Seam Strength	ASTM D751	lb _f	550	>550
Abrasion Resistance	Tabor 5305	50 mg/100 cycles	Pass	20.5
		2,000 cycles	No exposure	Pass
Weathering Resistance	QUV	hrs.	11,000 No Cracking No Blistering	11,000
Water Extraction	ASTM D3083	%	< 0.5	< 0.25
Wicking		in.	< 0.25	Pass
Bursting Strength	ASTM D751	psi	650	> 1,000
Puncture Resistance	ASTM D4833	lb _f	250	275
Coefficient of Thermal Expansion	ASTM D696	mm/mm°C	N/A	MD 1.1 x 10 ⁻⁵
Tongue Tear	ASTM D751	lb _f	140	205/205



Where the future is now

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