



Hypalon® Flexible Membrane Specification

2250 South Tenth Street, San Jose, CA 95112 • (408) 297-3500 or (800) 669-7010 • FAX: (408) 280-0938



Floating covers: Alcoa, Tennessee, installed 1971

Hypalon® Pond Liners

Hypalon (chlorosulfonated polyethylene) is the most durable flexible pond liner/cover material yet developed. Field installations and accelerated aging tests by Burke Environmental Products, the leading pond liner/cover manufacturer, have demonstrated that under most conditions Hypalon liners and covers have an extremely long service life. So for the most demanding liner/cover jobs, or where other liners or covers failed, Hypalon from Burke is the answer.

Weather Resistance

Hypalon synthetic rubber – regardless of color – will resist the elements better than any known material now used for liners or covers. It is exceptionally resistant to oxidation, and is virtually immune to ozone and ultraviolet light.

Chemical Resistance

Compounds of Hypalon resist a wide range of organic and inorganic chemicals. Hypalon has for many years proved to be suitable for the containment of a large variety of industrial wastes.

Low Temperature

Compounds of Hypalon retain their flexibility at low temperatures. Repeated cycles of freezing and thawing do not cause mechanical damage, even under tension.

Burke Hypalon can be compounded in white and attractive light colors without sacrificing its desirable properties. Colored products of Hypalon have been weathered out of doors for many years with minimal fading or discoloration.

Construction

Hypalon pond liners are made from a special polymer that is compounded, fabricated and installed in a thermoplastic state. Factory seam fabrication, under controlled conditions, is done by a precise combination of heat and pressure. Field seaming uses a bodied solvent adhesive following a pre-wash to give equally reliable results under the varying weather conditions encountered during installation. After installation, a surface cross-linking develops which produces a stronger, tougher, and more weatherable liner.



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The following are material properties for Burke's Flexible Membranes of Hypalon®.

PHYSICAL PROPERTIES:

(These are interim values and subject to change).

Property	Test Method	M-160	M-153	M-283	M-284	M-423	M-237	M-529	M-530
Total Plies		3	5	3	3	3	5	5	5
Mil Thickness (nominal)		30	45	36	45	60	60	60	90
Plies – Reinforcing		1	2	1	1	1	2	2	2
Thickness (mils min.)	ASTM D751								
1. Overall	Optical Method	27	41	34	41	55	55	55	85
2. Over Scrim		11	11	11	11	11	11	11	11
Breaking Strength (pounds min.)	ASTM D751 Grab Method	100	120	200	220	270	300	400	520
Elongation at Break (% min.)									
Fabric		15	15	15	15	15	15	15	15
Membrane		150	125	30	30	30	50	50	50
Tear Propagation (pounds min.)	ASTM D751 Tongue Tear 8x8 Sample	10	12	80	80	90	50	125	125
Hydrostatic Pressure (Min. resistance, psi)	ASTM D751 Method A Procedure 1	80	140	250	250	300	300	400	500
Puncture Resistance (pounds typical)	FTMS 101B Method 2031	105	195	240	250	265	287	490	530
Bonded Seam Strength (pounds min.)	ASTM D751 Modified (12 in./min.)	80	96	160	160	205	250	350	500
Ply Adhesion (lbs./in-width min.)	ASTM D143 Machine Method Type A (12 in./min.)	10 (or Film Tearing Bond)	12 (or Film Tearing Bond)	7 (or Film Tearing Bond)	7 (or Film Tearing Bond)	7 (or Film Tearing Bond)	10 (or Film Tearing Bond)	7 (or Film Tearing Bond)	7 (or Film Tearing Bond)
Ozone Resistance	ASTM D1149 1/8" Bent Loop 100 PPHM 104°F, 7 days	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass
Low Temperature	ASTM D2136 1/8" Mandrel 4 Hrs. @ -40°F	Pass	Pass	Pass	Pass	Pass	Pass	Pass	Pass

These specification tables represent current opinion of the data points to characterize the membrane product as produced and are not necessarily appropriate for product performance or installation or engineering design criteria "per se". (For example, the low temperature resistance numbers represent qualities for a few minutes at a given temperature and must not be interpreted or extrapolated into installation temperature qualities or comparisons).

*Minimum specification limits are currently proposed industry standards for this type of flexible membrane product. Burke Quality Control monitoring limits for this specification are based on a minimum 97.7% one-sided confidence level.

® Hypalon is registered trademark of Du Pont for chlorosulfonated polyethylene.

Product	Mil Thickness	Plies	Scrim Type
M-160	30	3	8x8x250D
M-153	45	5	8x8x250D
M-283	36	3	10x10x1000D
M-284	45	3	10x10x1000D
M-423	60	3	10x10x1000D
M-237	60	5	6x6x1000D
M-529	60	5	10x10x1000D
M-530	90	5	10x10x1000D