

POLYCASE CROSS LAMINATED HIGH DENSITY POLYETHYLENE ENCASEMENT PRODUCTS

BY



108 WALTER DAVIS DRIVE
BIRMINGHAM, ALABAMA 35209

PHONE: 205-942-7504 OR 800-766-6695 • FAX: 205-942-0705 or 205-942-5156

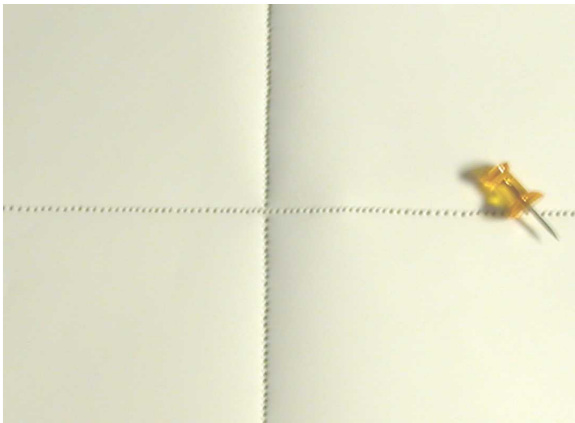
EMAIL - (CLICK FOR EMAIL LIST)

Installation Brochure (CLICK HERE) www.dipra.org/pdf/PolyethyleneEncasementGuide.pdf

4 MIL CROSS LAMINATED HIGH DENSITY POLYETHYLENE

PHYSICAL ATTRIBUTE	TEST DIRECTION	ANSI/AWWA C105/A21.5 MINIMUM REQUIREMENT	VIRGIN CROSS LAMINATED HIGH DENSITY POLYCASE TYPICAL TEST VALUES
TENSILE STRENGTH ASTM D882	MACHINE DIRECTION TRANSVERSE DIRECTION	6300 psi 6300 psi	8057 psi 8516 psi
ELONGATION ASTM D882	MACHINE DIRECTION TRANSVERSE DIRECTION	100% 100%	328% 269%
DIELECTRIC STRENGTH ASTM D149 (VOLTS / MIL)	THICKNESS	800 volts / mil	2828 volts / mil
IMPACT RESISTANCE ASTM D1079 (grams)	THICKNESS	600 grams	1546 grams
PROPAGATION TEAR RESISTANCE (gf)	MACHINE DIRECTION TRANSVERSE DIRECTION	250 grams/force 250 grams/force	471 grams/force 725 grams/force

DI PIPE SIZE - FILM SIZE	
4" - 6"	20" x 500'
10"	24" x 500'
12"	27" x 500'
14"	30" x 500'
16"	34" x 500'
18"	37" x 500'
20"	41" x 500'
24"	54" x 500'
30"	67" x 500'
36" - 42"	81" x 500'
48"	95" x 500'
54" - 60"	108" x 500'
64"	121" x 500'



ANSI/AWWA C105/A21.5-05 DEFINES CROSS-LAMINATED HIGH-DENSITY POLYETHYLENE FILM AS: "Film extruded from virgin high-density polyethylene raw material, which is then molecularly oriented by stretching. Two single-ply layers of the film are then laminated together with their orientations at 90 degrees to one another to form the final product."

Simple Field Test
Perforate an 8" square film sample in both "X" & "Y" axes and tear.
Film made by the Valeron® process is virtually impossible to tear.

WHAT MAKES VALERON STRENGTH FILM SO STRONG?

Valeron® Strength film, a tough, high-performance HD polyolefin film that is one of the strongest available anywhere. This lightweight film is your best solution for applications requiring high strength, tear and puncture resistance, easy handling, printability.

Valeron® film is a "cross-laminate" of two oriented HD polyolefin films. A patented process gives the film physical and mechanical characteristics that surpass those of traditional flexible materials.

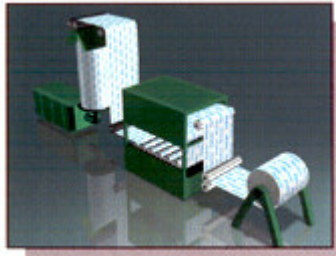
CONSIDER THESE ADVANTAGES

- Tear resistant
- Puncture resistant
- High burst strength
- Performs in temperatures from -70°F to +200°F (-57°C to +93°C)
- Moisture resistant
- Chemical resistant
- Excellent printability

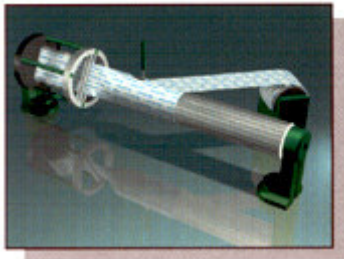
THE MANUFACTURING PROCESS

EXTRUSION & ORIENTATION

The extrusion process starts with a low blowup ration of high quality blended resins. The extruded tube of film is stretched in the machine direction to align the molecules, making the film extremely strong in one direction.



BIAS CUTTING



The stretched blown film tube is loaded onto Van Leer's unique spiral cutter. As the film tube moves forward, it is rotated and cut in a continuous spiral. This produces a single sheet of flat, bias-cut film with the strong molecular orientation now running in a 45° angle to the roll.

LAMINATION

Two bias-cut films are laminated together with their directions of strength at right angles to one another. This produces one sheet of high strength, puncture and tear resistant Valeron® film.

