POLYETHYLENE ENCASEMENT PRODUCTS

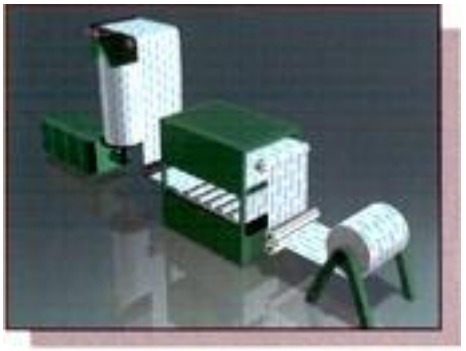
4 Mil Cross Laminated High Density Polyethylene

Encasement for corrosion protection of cast iron, ductile iron and steel pipe

In 1993 Virgin Cross-Laminated High-Density Polyethylene film was included in ANSI/ AWWA C105/A21.5. Our product is made to this standard and is printed as such.

VALERON® Strength Films is the trade name for the toughest polyethylene encasement film ever introduced for the protection of buried pipe systems. T. Christy Enterprises distributes Valeron® to the Water Works industry for corrosion protection.

VALERON film is a “cross-laminate” of two oriented polyolefin films. A patented process gives the film physical and mechanical characteristics that surpass those of traditional flexible materials



Specifications

Physical Attribute	Test Direction	ANSI/AWWA C105/A21.5 MINIMUM REQUIREMENT	SIGMA TYPICAL TEST VALUES
TENSILE STRENGTH ASTM D882	MACHINE DIRECTION	6300psi	8057psi
	TRANSVERSE DIRECTION	6300psi	8516psi
ELONGATION ASTM D882	MACHINE DIRECTION	100%	328%
	TRANSVERSE DIRECTION	100%	269%
DIELECTRIC STRENGTH ASTM D149 (VOLTS / MIL)	n/a	800 volts / mil	2828 volts / mil
IMPACT RESISTANCE ASTM D1709 (grams)	n/a	800 grams	1546 grams
PROPAGATION TEAR RESISTANCE ASTM D1922 (gf)	MACHINE DIRECTION	250 grams/force	471 grams/force
	TRANSVERSE DIRECTION	250 grams/force	725 grams/force

Manufacturing Process

The extrusion process starts with a low blowup ratio 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.

The stretched blown film tube is loaded onto VALERON’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 45º angle to the roll.

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.

T. Christy Enterprises
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AWWA Specifications

ANSI/AWWA C105/A21.5 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."

4 mil Stock Tube Sizes

(BASED ON ANSI/AWWA C105/A21.5 Table 1)

DI PIPE SIZE	LAYFLAT TUBE SIZE
4-8"	20" X 500 FT.
10-12"	27" X 500 FT.
14"	30" X 500 FT.
16"	34" X 500 FT.
18-20"	41" X 500 FT.
24"	54" X 500 FT.
30"	67" X 500 FT.
36-42"	81" X 500 FT.
48"	95" X 500 FT.
54-60"	108" X 500 FT.

Custom CL-HDPE Products

For product not shown in our standard ANSI/AWWA C105/A21.5 Stock tube sizes we can provide film designed to meet your most demanding requirements .

Specialty Polyethylene Products Specification/Ordering Guidelines	
THICKNESS	up to 6.5 Mils.
TUBE SIZE	Based on Manageable Weight
Colors	White(std.) - Black is Available
Minimum Order Qty.	Based on Requirements
Lead Time	Approximately 12 Weeks

Advantages of 4 Mil Cross Laminated HDPE

- Tear Resistant
- Puncture Resistant
- High Burst Strength
- Temperature Range: -70 to +200 F
- Moisture Resistant
- Chemical Resistant

Contact Christy's For More Information or to Place an Order

See www.TChristy.com for this and other Christy Polywrap Encasement Products

MADE IN USA

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