



## HIGH PERFORMANCE VCI PACKAGING

# VCI-129

### DESCRIPTION

VCI-129 is a high-density polyethylene (HDPE) film extruded with vapor corrosion inhibitors (VCIs). The VCIs volatilize from the film into the air within the package, condensing on all exposed metal surfaces, even recessed areas. Once the VCIs have condensed, they form a thin molecular protective layer that prevents corrosion. VCIs eliminate the need for messy and hazardous materials such as oils and other coatings.

The use of HDPE has many advantages. HDPE has substantially better barrier properties than VCI/VPI impregnated paper. The result is a film that is better at keeping contaminants, such as moisture, sulfur dioxide and hydrogen sulfide, outside of the package, while retaining the VCI on the inside.

### FEATURES

- Has exceptionally high barrier characteristics and will maintain a vacuum for extended periods of time
- In some cases, it is a replacement for expensive packages and materials such as MIL-B-131 aluminum foil and polyester films
- HDPE effectively allows the film to be used in higher temperatures and more humid climates than LDPE
- Exceptional seal strength
- Has better scratch and abrasion resistance than low density film

- Provides multimetal/corrosion protection
- Can be used in foam-in-place applications
- Can be made into rolls, sheets and most styles of bags, covers, liners or pouches, including such specialties as bags on a roll and zip-lock bags
- Available in gauges from 1 to 8 mils (25-200 microns)\*
- Available in clear or blue film

\*2 mils has similar strength values as 6 mils of LDPE

### METALS PROTECTED

- Carbon steel
- Stainless steel
- Copper and copper alloys
- Brass
- Aluminum and aluminum alloys
- Cast iron

## PHYSICAL PROPERTIES

Property	ASTM	Typical Values	
		LDPE (1.5 mil/37 microns)	HDPE (1 mil/25 microns)
Dart Impact Condition	D-1709	60 g (2 oz.)	180 g (6 oz.)
Tensile Strength @ Yield	D-882	1450 lb/in <sup>2</sup> (102 kg/cm <sup>2</sup> )	4600 lb/in <sup>2</sup> (323 kg/cm <sup>2</sup> )
Tensile Strength @ Failure	D-882	2600 lb/in <sup>2</sup> (183 kg/cm <sup>2</sup> )	5600 lb/in <sup>2</sup> (393 kg/cm <sup>2</sup> )
Secant Modulus Flex	D-882	22,000 lb/in <sup>2</sup> (1,547 kg/cm <sup>2</sup> )	125,000 lb/in <sup>2</sup> (8,788 kg/cm <sup>2</sup> )
Elongation	D-882	350 lb/in <sup>2</sup> (24 kg/cm <sup>2</sup> )	300-500 lb/in <sup>2</sup> (21-35 kg/cm <sup>2</sup> )
Elmendorf Tear Machine Direction	D-1922	150 g (5 oz.)	600 g (21 oz.)
Coefficient of Friction	D-1894	<0.2	0.2
Water Vapor Transmission	E-96	0.3 g/100 in <sup>2</sup> /24 hr.	0.18 g/100 in <sup>2</sup> /24 hr.

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