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Corrosion Intercept® Technology
State of the Art Corrosion Protection

Developed by Lucent Bell Labs to solve problems they were experiencing with Corrosion. The Intercept Technology is a revolutionary product reacting solid state reactive materials into a polymer matrix. These reactive materials react with and neutralize all corrosive gases that contact the film. Protection for long term and for short term storage and shipping situations. Intercept protects Ferrous and Non-Ferrous Metals as well as preventing Galvanic Corrosion.

Metals corrode (tarnish) by reaction with common gases in the atmosphere. These corrosive gases react with both Ferrous (Iron based) and Non-Ferrous metals, however these gases are the primary cause for Non-Ferrous metal (such as Silver, Tin, Copper, Brass, etc.) corrosion.

The common corrosive gases and examples of how they are produced:

- Hydrogen sulfide (H_2S) produced as affluent from pulp mills, oil refineries, heavy industry and from decaying vegetation.
- Carbonyl sulfide (COS) produced from fossil fuel combustion (such as burning coal, gasoline or petrol, oil, etc.), wood fires and ocean surfaces.
- Sulfur Dioxide (SO_2) produced from fossil fuel combustion and from smelting operations.
- Hydrogen chloride (HCl) produced from fossil fuel combustion and from ocean surfaces.

Intercept protects against Corrosion Damage:

- Reacts with and permanently neutralizes corrosive gases
- Long & Short term protection; protects products in-process
- Effective against Galvanic coupling (corrosion between joined dissimilar metals)
- Leaves no detectable deposit on any product it protects
- Cleanses trapped air of corrosive gases
- Provides cost savings by eliminating secondary packaging and cleaning operations
- Acts as a passive Bactericide and Mildewcide
- Eliminates the need for storage in inert atmospheres
- Environmentally friendly with substantially reduced landfill time and fully recyclable
- Effective corrosion protection for the following materials:
  - Silver
  - Copper
  - Bronze
  - Tin
  - Brass
  - Magnesium
  - Ferrous Metals (Iron and Steel)
  - Galvanic couples (if the Intercept is in intimate contact)

Physical Properties		Typical Values	Test Method
Thickness		3 mils	
Tensile Strength	MD	11.5 Lbs/in	ASTM D882
	TD	9.0 Lbs/in	ASTM D882
Elongation	MD	321 %	ASTM D882
	TD	512 %	ASTM D882
Puncture Resistance		8.0 Lbs	FTMS 101, MTH 2065
Dynamic Coefficient of Friction		.27 (on own surface)	
Moisture Permeation		3 g/m^2 (40°C per 24 hrs)	
Sulfur and Chlorine Permeation		0 cc/m^2 (for 15 years)	DuPont and AT&T Test
Ozone Permeation		0 cc/m^2 (for 15 years)	DuPont and AT&T Test
Heat Seal Strength		6.0 lbs/in	Instron