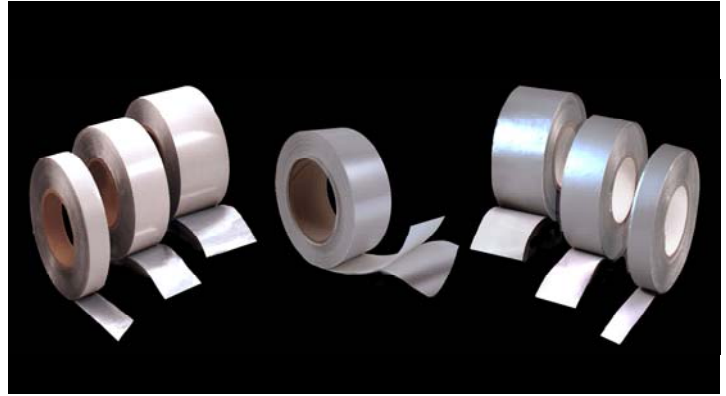
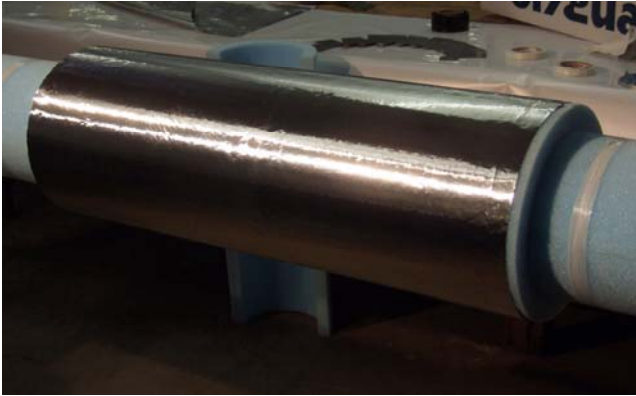


ZERO-PERM® VAPOR BARRIER MEMBRANE



Zero-Perm® vapor barrier membrane from **Polyguard Products** is an absolute “zero perm” barrier that provides maximum protection for all types of insulations used in below ambient, sub-freezing and cryogenic applications on duct, pipe, or vessel systems

- Meets ASTM E84 25/50 Smoke and Flame requirements.
- Puncture and tear resistance
- Zero permeability
- Paper-free
- Mold resistant
- Reversible silver or white finish

Description

Zero-Perm is a 3-ply composite membrane consisting of two 0.5 mil plies of polyester sandwiching one ply of 1.0 mil Aluminum Foil. The foil provides the zero permeance in the composite while the polyester layers protect the foil and provide toughness and tear resistance. **Zero-Perm** is silver on one side and white on the other allowing for the white side to be exposed if no protective jacket is required.

Uses

Zero-Perm® vapor barrier is used on cold systems either between layers of insulation on sub-freezing projects like LNG piping, or as the outer vapor-barrier jacket on ammonia, brine or glycol systems under mechanical jacketing, either metal or PVC. **Zero-Perm** can also be used on chilled water systems replacing ASJ and PVDC jacketing either left exposed or under a protective metal or PVC jacket.

Installation

Zero-Perm is typically factory installed by a fabricator but can be installed in the field. Two types of **Zero-Perm** tapes are available to complete the installation in the field. Both use a high quality, acrylic adhesive with excellent cold weather performance. **Zero-Perm A** has a kraft release liner and is typically available in 2” and 3” width rolls for sealing longitudinal and circumferential laps. Zero-Perm Self-Wound has no liner, is used on valves and fittings and comes in 1”, 2” and 3” widths. See separate data sheet for Zero-Perm tapes.

Packaging

- **Zero-Perm Vapor Barrier** (rolls) - 23.5” x 500’; 35.5” x 500’; 35.5” x 1000’
- **Zero-Perm A** (acrylic adhesive with liner) (rolls)- 2”, 3”, 23.5”, 35.5” x 150’
- **Zero-Perm Self-wound Tape** (acrylic adhesive) (rolls)- 1”, 2”, 3” x 400’

Zero-Perm[®] Technical Properties and Testing

| Membrane Property | Test Method | Results |
|--|---------------------------------|-----------------------|
| Total Product Thickness | Micrometer | 2.4 Mils(12/26/12mic) |
| Water Vapor Transmission(grains/hr-ft ²) | ASTM E96-Procedure A | .00 |
| Burst Strength | ASTM D 774 | 130 psi |
| Tensile Strength | ASTM C1136 | 30 lb/in |
| Mold and Mildew Resistance | ASTM C-1338 | No Growth |
| High Service Temperature Limit | Oven Exposure at Temperature | +300°F |
| Low Service Temperature Limit | Freezer Exposure at Temperature | -100°F |
| Humidity Resistance | ASTM C1258 | Pass |
| Dimensional Stability | ASTM D1204@150°F | <0.25% change |
| Weight Per Area | Scale/Balance | 23 lbs/1000 sq.ft. |
| Flame/Smoke | ASTM E-84 | Meets 25/50 |

Note: Before installing Zero-Perm obtain a full set of installation instructions at www.PolyguardProducts.com or by calling Polyguard at 800-541-4994 or by asking your local distributor or sales representative.