

# VERTIWRAP® NPL, NPL LT

## PRIMERLESS, FLUID-APPLIED, WATER RESISTIVE NON-PERMEABLE AIR BARRIER

### PRODUCT DESCRIPTION

Vertiwrap NPL and NPL LT air barrier membranes prevent the passage of air, water vapor, and liquid water from entering the wall assembly. Vertiwrap NPL and NPL LT reduces the build up of moisture in the wall assembly, increasing the wall durability and comfort of the building occupants. Vertiwrap NPL and NPL LT is compliant in a wide variety of NFPA285 wall assemblies.

### FEATURES AND BENEFITS

- Monolithic membrane fully adheres to substrate virtually eliminating water migration
- 12 months UV exposure
- Single pass application
- 50 mils wet, 25 mils dry
- Designed to be sprayed, rolled, or trowel applied
- Seals around fasteners used in brick ties, terminations bars, etc.
- NFPA 285 compliant in most wall assemblies
- Vertiwrap NPL LT can be applied at 20°F (-6.7°C) and rising

### SYSTEM COMPONENTS

- Vertiwrap NPS
- Vertiwrap TWF
- Vertiseal 50

### TECHNICAL DESCRIPTION

Property	Test Method	Typical Result
Color		Dark Gray
Thickness, nominal		50 mil WFT / 25 mil DFT
Water Resistance	ASTM E331	Pass @ > 15 psf
Water Vapor Permeance	ASTM E96 Method A	0.06 perms
Water Vapor Permeance	ASTM E96 Method B	0.316 perms
Air Leakage (Membrane)	ASTM E2178	< 0.02 L/s.m. <sup>2</sup>
Air Leakage through Assembly	ASTM E2357	Pass
Elongation	ASTM D412	> 250%
Nail Sealability	ASTM D1970	Pass
Crack Bridging Ability	ASTM C1305	Pass
Hydrostatic Resistance	AATCC 127	Pass
Flame Spread	ASTM E84	Class A
Smoke Developed	ASTM E84	Class A
VOC Content	EPA Method 24	< 50 g/L

### STORAGE AND SHELF LIFE

12 month shelf-life if stored in its original packaging in a dry environment at a temperature between 40°F and 90°F (4°C and 32°C). Store Vertiwrap NPL and NPL LT off the ground and protected from moisture and freezing.

### LIMITATIONS

Vertiwrap NPL and NPL LT cannot be permanently exposed to UV and must be protected or covered with the exterior cladding within 12 months of installation. Vertiwrap NPL and NPL LT have a maximum in-service temperature of 230°F (110°C). Vertiwrap NPL and NPL LT are subject to freezing at temperatures below 32°F (0°C).



### PRODUCT DATA

#### 5 gal pails

Gross Weight – 54.2 lb (24.6 kg)  
Net Weight – 50 lb (22.7 kg)  
36 Pails per Pallet

#### 55 gal drums

Gross Weight – 527 lb (239 kg)  
Net Weight – 472 lb (214 kg)  
4 Drums per Pallet

### APPROVALS & CERTIFICATIONS

- NFPA 285 Compliant in a variety of wall assemblies

### WHERE TO USE

- Above grade walls

### PRODUCT CODES

- Vertiwrap NPL 5 gal – VTWNPL05GP
- Vertiwrap NPL 55 gal – VTWNPL55GP
- Vertiwrap NPL LT 5 gal – VTWNPLT05GP
- Vertiwrap NPL LT 55 gal – VTWNPLT55GP



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### SUITABLE SUBSTRATES AND SURFACE PREPARATION

#### EXTERIOR GRADE GLASS MAT SHEATHING, PLYWOOD OR OSB

Panel joints should be securely fastened, flush and spaced according to the manufacturer's requirements. All sheathing joints must be filled with Vertiseal 50, extending approximately 1/2" on each side of the joint at a minimum thickness of 15 mils. Vertiwrap NPL and NPL LT can be installed over Vertiseal 50 once the sealant is tack free. Damaged sheathing must be repaired according to the manufacturer's requirements prior to application. Mapeprime S710 or solvent based spray adhesive on gypsum cut edges is advised prior to installing Vertiwrap products.

#### CONCRETE MASONRY UNIT (CMU)

CMU joints should be struck full and flush, and mortar must be allowed to cure for a minimum of 3 days prior to application of the Vertiwrap system. All mortar must be removed from pre-installed brick ties.

#### CONCRETE

Remove any loose aggregate and repair spalled areas or other deficiencies in the concrete. Bugholes greater than 1/4" should be repaired with a non-shrink grout and all form match lines removed. Allow concrete to cure for a minimum of 7 days.

### PRODUCT APPLICATION

#### TEMPERATURE

**Vertiwrap NPL** may be applied to clean, dry, frost free substrates per surface preparation guidelines when air and surface temperature are 40°F (4°C) and rising. Do not apply if temperatures are expected to fall below 40°F (4°C) prior to curing. At 70°F (21°C) with 50% relative humidity, cure time is approximately 24 hours. Drying time will be extended in low temperatures and/or high humidity.

**Vertiwrap NPL LT** may be applied to clean, dry, frost free substrates per surface preparation guidelines when air and surface temperature are 20°F (-6.7°C) and rising. Do not apply if temperatures are expected to fall below 20°F (-6.7°C) prior to curing. At 32°F (0°C), with 50% relative humidity, drying time is approximately 24 hours. Drying time will be extended in low temperatures and/or high humidity.

#### INSTALLATION

- Ensure that wall assemblies are dried in and that the top of walls are protected from water intrusion prior to installing. All substrates must be clean, dry and free of frost.

- Vertiwrap NPL and NPL LT are ready to use and require no mixing unless separation is observed. Installation can be achieved by standard roller, power roller, brush or spray. For spray applications a pneumatic or airless sprayer with a working pressure of 3500 psi and a 45:1 lower unit capable of delivering approx. 3 gallons per minute is advised. Typical spray equipment would be a Graco 733/833 with a hose combination of 1/2" and 3/8" and tip sizes ranging from 0.035–0.039. Consult Polyglass Technical Services for additional details on spray equipment.
- Treat all outside sheathing corners and transitions to dissimilar substrates with a minimum 6" (15 cm) strip of Vertiwrap NPS centered over the corner.
- All penetrations through the Vertiwrap NPL and NPL LT systems must be fully secured. Vertiseal 50 or a Polyglass approved sealant must be applied around all penetrations through the Vertiwrap NPL and NPL LT membranes. Vertiseal 50 may also be applied to all post applied fasteners at the discretion of the installer or as part of the project design requirements.
- Vertiwrap NPS can be used at window and door openings, alternatively Vertiwrap NPL and NPL LT can be used as flashing at openings after pretreating the interface between the sheathing and framing with Vertiseal 50. See standard Polyglass details for additional detailing instructions.

#### COVERAGE

- Vertiwrap NPL and NPL LT applied at 50 wet mils will provide a typical coverage rate of 32 ft<sup>2</sup>/gal to achieve a 25 mil dry film thickness.
- Coverage rates may vary depending on the substrate porosity and texture of the substrate. Very porous substrates will result in lower coverage rates.

#### REPAIRS

- The system should be inspected for damage prior to concealment.
- Repairs to damaged areas should be made by first removing any unbonded membrane and then installing Vertiwrap NPL and NPL LT a min. of 6" past the damaged area.

#### CLEANING

Mild detergent and water can be used to clean tools and equipment.



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**Product Disclaimer:** Unless otherwise incorporated into or part of a supplemental manufacturer's warranty, Polyglass warrants its product(s) against manufacturing defects in its product that directly results in leakage for a period of 1 year. Refer to safety data sheet (SDS) for specific data and handling of our products. All data furnished refers to standard production and is given in good faith within the applicable manufacturing and testing tolerances. Polyglass U.S.A., Inc., reserves the right to improve and change its products at any time without prior notice. Polyglass U.S.A., Inc. cannot be held responsible for the use of its products under conditions beyond its own control. For most current product data, detail drawings and warranty information, visit [www.polyglass.us](http://www.polyglass.us)



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