PRODUCT INFORMATION

CE-220
10/18 Supersedes 07/18

PENNGUARD™ ADHESIVE/MEMBRANE

DESCRIPTION

PENNGUARD Adhesive/Membrane is a 2-component, elastomeric, trowel applied, urethane-asphalt mastic adhesive. The membrane has excellent chemical resistance to a variety of acids, alkaline and salt solutions. **Refer to Corrosion Engineering specification CES-350 entitled "Specification for Installation, PENNGUARD Block Lining System" for complete installation details**.

AREAS OF USE

PENNGUARD Adhesive/Membrane is designed for use in flue gas environments as typically encountered in coal fired power plants. PENNGUARD Adhesive/Membrane is used as a part of Corrosion Engineering's unique PENNGUARD Block Lining System. It functions as the underlying membrane beneath the insulating PENNGUARD Block layer, protecting the substrate from chemical attack. It also serves as an adhesive to bond the PENNGUARD Block to suitably prepared substrates such as steel, concrete, FRP (GRP), and brick. For concrete substrates, use with PENNTROWEL™ Epoxy Primer (CE-139) to minimize outgassing and with new concrete that has not fully cured. On steel substrates, no primer is required for adhesion, but PENNGUARD HP Epoxy Block Primer (CE-314) is recommended to prevent re-rusting of the blasted surface.

PENNGUARD Adhesive/Membrane is used to bed and fill side joints between the individual pieces of PENNGUARD Block within its service temperature limits. Consult Corrosion Engineering for project specific recommendations. PENNGUARD Adhesive/Membrane may also be used as a trowel-applied protective membrane under chemically-resistant masonry/monolithics, or even used as a independent elastomeric lining. PENNGUARD Adhesive/Membrane is applied by trowel.

OUTSTANDING FEATURES

- Excellent resistance to corrosive flue gas environments.
- Remains elastomeric and flexible up to its service temperature limits.
- Able to bridge hairline cracks in concrete and brick substrates.
- FM approved for use in chimney flues as a component of the PENNGUARD Block Lining System.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	PENNGUARD Adhesive/Membrane
Service Temperature behind PENNGUARD Block (at bond line behind block)	-40°F to 200°F (-40°C to 93°C) *Note: Experience has indicated the service temperature of PENNGUARD Adhesive Membrane in side joints of a PENNGUARD Block Lining is significantly higher than values stated above. Consult your Corrosion Engineering representative for maximum service temperature limits for specific applications.
Tensile Strength @ 74°F (ASTM D412)	>100 psi (0.69 MPa)
Elongation @ 74°F (ASTM D412)	> 100%
Fire Resistance	FM (Factory Mutual) Approved. Consult Ergon for details.
Bond Strength to Carbon Steel (ASTM D4541)	135 psi (0.93 MPa)
Mix Ratio Component A : Component B	46:1 by weight. Mix full units only
Wet Mix Weight (ASTM D71)	8.7 lbs / gal. (1.04 kg / liter)
Pot Life @ 70°F (21°C (approximate)	45-55 minutes
Color and Appearance	Black elastomeric rubber
Resistance to Abrasion by Sandblast (FED-TT-C-520)	Excellent

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	CODE	PACKAGE	COVERAGE
PENNGUARD Adhesive/Membrane Part A	19671 (domestic ground) 19672 (sea shipment) 19681 (air shipment UN pail)	4 gallon unit 4 gallon pail 4 gallon pail	Mix 1 Bottle of Hardener with Part A. A combined 4.0 gallon (15.1l) mix will theoretically install 90 pieces of 1.5"x6"x9" PG Block assuming 1/8 " (3 mm) joints and 82* pieces of 2"x6'x9" PG Block assuming 1/8" (3 mm) joints. **NOTE: Experience has indicated a 1/3 reduction in the number of pieces installed per unit when overage and wastage is considered on steel. Reduce further on concrete or ceramic brick. Consult Ergon for Specific application advice and estimating.**
Urethane Asphalt Hardener Part B	29488-341	341 gm bottle	

SAFETY PRECAUTIONS / DISCLAIMER

Mixes and applications of this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and material safety data sheets before using. While all statements, technical information, and recommendations contained herein are based on information our company believes to be reliable, nothing contained herein shall constitute any warranty, express or implied, with respect to the products and/or services described herein and any such warranties are expressly disclaimed. We recommend that the prospective purchaser or user independently determine the suitability of our product(s) for their intended use. No statement, information or recommendation with respect to our products, whether contained herein or otherwise communicated, shall be legally binding upon us unless expressly set forth in a written agreement between us and the purchaser/user.