

CE-281
12/13 Supersedes 01/99

CORLOK[®] B MORTAR

DESCRIPTION

CORLOK B Mortar is a two component halogen-free, chemically hardening inorganic potassium silicate brick mortar. It conforms to ASTM C-466. It is not formulated with sodium, calcium or fluoride-based products. It is not resistant to significant concentrations of acid fluorides or to hydrofluoric acid. **Consult Corrosion Engineering specification [CES-358](#) for complete installation details.**

AREAS OF USE

CORLOK B Mortar has a 45 year record of successful performance, with over 40,000,000 lbs having been used in the construction of acid-resistant brick linings in industrial chimneys, sulfuric acid plant equipment, tanks, and vessels where strong oxidizing acids, including nitric, chromic and sulfuric, are found.

CORLOK B is an economical potassium silicate mortar, and is particularly suited for constructing independent acid brick liners of chimneys serving thermal power generating plants where high sulfur fossil fuels and/or wet flue gas desulfurization systems are utilized.

OUTSTANDING FEATURES

- Two component - Possesses excellent handling and workability characteristics.
- Non-corrosive to metals. Will not corrode or pit lead, carbon steel, stainless steel or chrome-nickel alloys with which it may be in contact.
- Free from fluoride-based hardeners. This eliminates the release of HF (hydrofluoric acid) from the mortar either during curing or when the equipment is placed into operation. CORLOK is also freed of sodium and calcium. This eliminates possible deterioration of the mortar due to sulfation hydration reactions
- Resistant to sulfuric acid at all concentrations.
- No acid washing to the exposed surface of the mortar joints is required following installation of the brick lining to develop mortar strength.
- High bond strength - renders tight brickwork which is less susceptible to leakage.

TYPICAL PHYSICAL PROPERTIES

| PROPERTY | CORLOK B |
|---|---|
| Color | White |
| Density (ASTM C138) | 123 lbs/cf (1970 kg/m ³) |
| Work life / Set time @ 70° F (ASTM C308) | 30-40 minutes / 3-4 hours |
| Compressive strength (ASTM C579) 7 days / 28 days | >3,800 psi (26 MPa) / >5,400 psi (37 MPa) |
| Tensile strength (ASTM C307) | >360 psi (2.5 MPa) |
| Flexural strength (ASTM C580) | >1,350 psi (9.3 MPa) |
| Bond strength to brick (Pull Blocks) | >180 psi (1.2 MPa) |
| Maximum service temperature | 1,650° F (900° C) |

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

| PRODUCT | CODE | PACKAGING | MIX RATIO* |
|------------------------------------|----------------|---------------------------|---|
| CORLOK B Powder | 19539 | 55 lb bag | 2.5:1* (Powder : Solution) by weight. A unit (154 lb) consists of 2 x 55 lb bags of powder and 1 x 44 lb pail of solution. |
| CORLOK Solution CORLOK Solution | 19554 19553 | 44 lb pail 600 lb drum | |

*NOTE: Mix ratios vary due to ambient air temperatures and the handling preferences of individual bricklayers. The above information is provided as a general guide only. For usage rates for specific masonry units, consult Corrosion Engineering's estimating guide CE-145.

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.



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