

CE-208
12/13 Supersedes 01/99

K14[®] MORTAR

DESCRIPTION

K14 Mortar is a potassium silicate bonded mortar which is intended for high temperature use in thermal and chemical equipment where the refractory temperatures are observed, yet where it is important to retain high strength and chemical resistance throughout a refractory and/or chemical resistant masonry lining. **Consult Corrosion Engineering specification [CES-358](#) for complete installation details.**

AREAS OF USE

K14 Mortar is used for bonding of chemical resistant brick used in roasters, kilns, scrubber hot gas inlets, furnaces, dryers, boilers, incinerators, chlorinators, reactors, and other chemical process equipment

It is formulated for use in areas where process conditions exceed both the temperature capabilities of conventional silicate mortars, and the chemical resistance of refractory mortars.

OUTSTANDING FEATURES

- Heat resistant - Resists temperatures from 1800 to 2500[°]F (982-1371[°]C) depending on service conditions.
- Easy to use - Mixes readily with mechanical mixer, trowels easily.
- Does not sulfate-hydrate.
- Corrosion resistant - Unaffected by mineral acids except phosphoric acid over 70% and acid fluorides.
- Strong - Retains its compressive strength up to 2500[°] F.
- Sets chemically - Does not depend on air, dehydration or evaporation.
- No heat cure required - Strength achieved by chemical reaction at room temperature.

TYPICAL PHYSICAL PROPERTIES

PROPERTY	K-14 Mortar
Color	White
Density (ASTM C138)	117 lb./cu.ft. (1874 kg/m ³)
Work life / Set time @ 70°F(ASTM C308)	20-25 minutes / 5 - 5 ½ hours
Compressive strength (ASTM C579)	>3,150 psi (22 MPa)
Tensile strength (ASTM C307)	>570 psi (3.9 MPa)
Flexural strength (ASTM C580)	>900 psi (6.2 MPa)
Bond strength to brick (Pull Blocks)	>360-450 psi (2.5-3.1 MPa)
Maximum service temperature	2,500° F (1,371° C)

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	CODE	PACKAGING	MIX RATIO*
K-14 Powder	19528	55 lb bag	2.5:1.0 * (Powder: Solution) A unit (154 lb) consists of 2 x 55 lb bags of powder and 1 x 44 lb pail of solution.
K-14 Solution	19530	44 lb pail	
K-14 Solution	19529	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 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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