

*CE-250  
12/13 Supersedes 02/02*

### **PENNCHEM<sup>®</sup> MORTAR**

#### **DESCRIPTION**

PENNCHEM Mortar is a two component, silica filled, chemical-resistant, vinyl ester resin-based mortar. Supplied as a powder and resin, the components are field mixed to obtain a trowelable consistency for setting acid brick and glazed tile units, or for pointing masonry construction. PENNCHEM Mortar is white in color. A black tinted filler is available on special order for food applications where a black mortar joint is desired. Consult Corrosion Engineering for details. **Consult Corrosion Engineering specification [CES-358](#) for complete installation details.**

#### **AREAS OF USE**

PENNCHEM Mortar is ideally suited for use in the chemical process and pulp & paper industries, for applications where resistance to oxidizing chemistry is required. It is suitable for use in chlorine dioxide bleach towers, tile chests, spent acid storage tanks, and waste treatment areas such as floors, trenches and sumps. PENNCHEM Mortar has excellent resistance to bleach solutions, mineral and organic acids, alkaline solutions and some organic solvents, PENNCHEM Mortar may also be used in other chemical process, food and beverage plant applications where resistance to oxidizing chemical exposures such as nitric acid based chemistry is required. Such applications include CIP cleaner systems. PENNCHEM Mortar is also suitable in any masonry application where mortar resistance against chlorine or other bleaching type solutions is required PENNCHEM Mortar Black will lighten in color in such applications. Such color change does not indicate mortar deterioration.

#### **OUTSTANDING FEATURES**

- Excellent physical properties.
- Resistant to strong oxidizing agents.
- Resistant to bleach conditions.
- Easy to field mix and apply. Excellent handling properties.
- Rapid development of physical properties after installation.

**TYPICAL PHYSICAL PROPERTIES**

PROPERTY	PENNCHEM Mortar
Color	White When using 19523 White Powder Black When using 19536 Black Powder (Note: Black powder is subject to minimum batch size requirements)
Density (ASTM C138)	116 lb / cu ft (1858 Kg/m <sup>3</sup> )
Working Time/ Initial Set Time:	@ 50°F (10°C) 75-85 / 80-90 minutes @ 70°F (21°C) 30-40 / 35-45 minutes @ 90°F (23°C) 10-20 / 15-25 minutes
Working Time/ Initial Set Time with PENNCHEM Mortar Initiator: @ 50°F (10°C)	30-40 / 45-55 minutes
Compressive strength (ASTM C579)	>12,500 psi (86 MPa)
Tensile strength (ASTM C307)	>1,600 psi (11.0 MPa)
Bond strength to brick (Pull Blocks)	>275 psi (1.9 MPa)
Water absorption (ASTM C413)	0.2%
Maximum service temperature	225°F (107°C) depending upon chemical environment

**ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE**

PRODUCT	CODE	PACKAGING	MIX RATIO*
PENNCHEM Resin	29426	50 lb pail	3.5 - 4.0 :1.0 (Powder : Resin) by weight.* A unit (230 lb) consists of 1 pail of resin and 3 bags of powder
PENNCHEM Powder White PENNCHEM Powder Black	19523 19536	60 lb bag 60 lb bag	
PENNCHEM Mortar Initiator (for cold weather)	19524	32 fl. oz. btl	1 x 32 oz bottle is sufficient to add to 15 pails of PENNCHEM Resin

\*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 CES-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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