Corrosion Engineering
A Division of ErgonArmor

PRODUCT INFORMATION

CE-255
12/13 Supersedes 10/99

PC1000 MORTAR

DESCRIPTION

PC1000 Mortar is a two component, silica filled, asbestos-free, 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 glazed tile and masonry construction. PC1000 Mortar is normally white in color. A black tinted filler is available on special order for specific 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

PC1000 Mortar is ideally suited for use in the chemical process and pulp & paper industries, for applications in bleach towers, tile chests, acid storage tanks, and waste treatment areas such as chemical resistant brick and tile floors, trenches and sumps. PC1000 Mortar has excellent resistance to oxidizing chemistry solutions, mineral and organic acids, alkaline solutions and some organic solvents. PC1000 Mortar is suitable in any masonry application where mortar resistance against moderate to strong acid and/or caustic solutions is required. PC1000 Mortar may also be used in other chemical process or 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, and flooring applications in dairy or food processing industries where nitric acid or chlorine based chemistry is used for cleaning cycles.

OUTSTANDING FEATURES

- Excellent physical properties.
- Resistant to oxidizing agents.
- Broad chemical resistance.
- Easy to field mix and apply. Excellent handling properties.
- Rapid development of physical properties after installation.

TYPICAL PHYSICAL PROPERTIES

PROPERTY		**PC1000 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)		118 lb / cu ft
Working Time/ Initial Set Time: + PENNCHEM Mortar Initiator	@ 50°F(10°C) @ 50°F (10°C) @ 70°F (21°C) @ 90°F (23°C)	75-85 minutes / 80-90 minutes 30-40 minutes / 40-50 minutes 25-35 minutes / 35-45 minutes 10-20 minutes / 15-25 minutes
Compressive strength (ASTM C579)		1 day >8,700 psi (60 MPa) 4 day >9,700 psi (67 MPa) 7 day >10,500 psi (72 MPa)
Tensile strength (ASTM C307)		>1,800 psi (12.4 MPa)
Bond strength to brick (Pull Blocks)		>275 psi (1.9 MPa)
Water absorption (ASTM C413)		0.21 %
Maximum service temperature		210°F (99°C) depending upon chemical environment

ESTIMATING/PACKAGING THEORETICAL QUANTITIES – NO OVERAGE ALLOWANCE

PRODUCT	**CODE**	**PACKAGING**	**MIX RATIO***
PC1000 Resin	24346	50 lb pail	3.6:1.0 (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 PC1000 Resin

*NOTE: Mix ratios may 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.

ErgonArmor TECHNICAL COATING SOLUTIONS®
Corrosion Engineering | 300 Stevens Drive, Suite 310, Lester, PA 19113
+1-610-833-4001 Phone | +1-610-833-3040 Fax | corrosion-engineering.com