

**CE-271**  
**10/18 Supersedes 12/13**

## ***PENNCHEM™ TILE GROUT***

### **DESCRIPTION**

PENNCHEM Tile Grout is a two component, silica-filled, vinyl ester resin based tile grout. Supplied as a filler and resin, the components are field mixed to a pourable tile grout consistency for the grouting of side (head) joints of chemical-resistant brick or tile. PENNCHEM Tile Grout meets ASTM C658 - Standard Specifications for Chemical-Resistant Resin Grouts for Brick or Tile. Check with Corrosion Engineering for details. **Consult Corrosion Engineering specification CES-309 for complete installation details.**

### **AREAS OF USE**

PENNCHEM Tile Grout has excellent resistance to oxidizing chemicals often found in food, beverage, and pharmaceutical processing facilities. Such chemicals include nitric acid based cleaners and chlorine based sanitizers. PENNCHEM Tile Grout is ideally suited for use in the clean-in-place (CIP) areas of dairy processing plants where oxidizing chemicals are used.

PENNCHEM Tile Grout may also be used in any industrial facility where a vinyl ester tile grout is required for chemical-resistant masonry or tile construction. Tile top surface should be waxed before grouting to allow for removal of grout film.

### **OUTSTANDING FEATURES**

- Two component product. No separate hardener is required
- Excellent resistance to strong oxidizers.
- Flows easily into grout joints.
- Low-shrink vinyl ester resin based formula.
- Develops strength rapidly.
- Optional cold room initiator is available for use in cold room applications where temperatures are below 50°F (10°C)

**TYPICAL PHYSICAL PROPERTIES**

PROPERTY	PENNCHEM Tile Grout	
Color	White	
Density	104 lbs/cf (1666 kg/m <sup>3</sup> )	
Bond Strength (ASTM C321)	Greater than strength of brick and tile	
Compressive Strength (ASTM C579)	8 hours 1 day 21 days	5,000 psi (34.5 MPa) 8,000 psi (55.2 MPa) 12,000 psi (82.7 MPa)
Tensile Strength (ASTM C307) 7 days	2,000 psi min. (13.8 MPa)	
Flexural Strength (ASTM C453) 7 days	4,100 psi (28.3 MPa)	
Modulus of Elasticity (ASTM C580) 7 days	0.96 x 10 <sup>6</sup> psi (6,621 MPa)	
Linear Shrinkage (ASTM C531)	0.2%	
Mix Ratio Powder: Resin	2.4:1 (By weight)	
Work Life /Initial Set Time @ 70°F (21°C) Work life/Set time @ 70°F (21°C) with 2 fl oz Pennchem Initiator addition	55 minutes / 70 minutes 20 minutes / 25 minutes	
Time to steam clean @ 70°F (21°C)	8 Hours	

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

PRODUCT	CODE	PACKAGING	MIX RATIO
PENNCHEM Resin	29426	50 lb (22.7 kg) pail	2.4 to 1.0 by weight. A 170 lb (1.63 cu ft) unit of PENNCHEM Tile Grout components consists of two 60 lb bags of PENNCHEM Powder and one 50 lb pail of PENNCHEM Resin.  For low temperatures or for faster work life/set time, use Pennchem Initiator. Add 2.0 to 3.0 oz to a pail of PENNCHEM Resin  Square footage coverage per unit mixed will vary with tile size and joint depth. For usage rates for specific tile units, consult Corrosion Engineering estimating guide CE-145.
PENNCHEM Powder	19523	60 lb (27.2 kg) bag	
PENNCHEM Initiator	19524	32 oz 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.

