

# **Pennchem™ Tile**

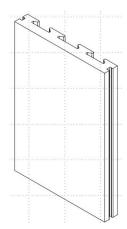
## **SELECTION & SPECIFICATION DATA**

**Type** 

Structural Glazed Tile

Description

Pennchem Tile are glazed, vitrified ceramic tile used to construct and line chemical process equipment. Commonly called structural glazed tile or liner plates, these non-stick, ribbed tiles become an integral element of the structure once concrete is placed behind them. Pennchem Tile may also be used against steel vessels using a setand-back-pour installation method. Available in 8.75-inch (222 mm) x 11.75-inch (298 mm) modules.



#### Uses

- · Pulp chests
- HD Towers
- · Brown stock chests
- Wire pits
- Couch pits
- Screen chests
- White water chests
- · Thickeners and clarifiers
- Scrubbers
- Flue gas desulfurization (FGD) absorber towers

#### **Features**

- Excellent dimensional tolerance
- · Easy to cut in the field
- Made in USA
- Integrally extruded ribs form robust anchor to concrete
- · Design reduces tile stress points
- Factory applied, durable glaze finish
- Nonstick surface

#### Limitations

- Cut to fit around inlets, outlets, and nozzles
- Not for use beyond its chemical and thermal limits

## **INSTALLATION GUIDANCE**

## Reference Specifications

For commonly used chemical-resistant side and head joint setting or repointing mortar, consult CE-250 Pennchem™ Mortar product data sheet.

When used with a polymer concrete or grout backfill, consult the following product data sheets:

- CE-284 Acrocast™ Polymer Concrete
- CE-292 Acrocast XF Concrete
- CE-240 Acrocast Grout
- CE-268 Acrocast XF Grout

# Installation Conditions

Tile bonding surfaces should be clean and dry during installation. Prevent condensation on tile surfaces by acclimating them to the ambient conditions at the work site. Break open pallets to speed this process. For allowable ambient and material temperature conditions, consult mortar, concrete, and grout installation instructions.

## **SAFETY**

#### Safety

Mixes and applications of components used with this product present a number of hazards. Read and follow the hazard information, precautions and first aid directions on the individual product labels and safety data sheets before using.

#### Ventilation

Provide thorough air circulation during and after installation until the material has cured when used in enclosed areas.



# **Pennchem<sup>™</sup> Tile**

# **PACKAGING, ESTIMATING & HANDLING**

Pennchem Tile are often referred to as a 9 x 12-inch modules. Actual tile dimensions are  $8.75 \times 11.75 \times 1.25$ -inch thick (222 x 298 x 32 mm).

Code Description Package
30801 Pennchem Tile Palomino Each (1 piece)

30804 Pennchem Tile Rustic Orange Each (1 piece)

Tile are packaged 220 tile per pallet, 11 tile per row (4-4-3) and 20 rows per pallet on a  $33'' \times 33''$  pallet.

Tile are sold in full pallet lots only.

A full pallet weighs approximately 1955 lb (887 kg) including pallet.

Mortars, Polymer Concrete, and Structural Grout components used to install Pennchem Tiles are packaged as outlined on individual data sheets. Consult Armor for details.

Storage & Shelf Life Maintain products in original packaging and sealed until ready for use. Tile pieces have an indefinite shelf life. Cardboard dividers or cartons used to store or package Pennchem Tile may degrade when wet. Keep product dry.

## TYPICAL PHYSICAL PROPERTIES

Color Palomino, Rustic Orange. Other colors

available, call

Shape availability Rectangular

Surface texture Smooth, factory applied glaze

Thickness Face thickness: 0.75-inch (19 mm)

Thickness at lugs: 1.25-inch (32 mm)

Dimension tolerance, ASTM C1088 < 3%

Bulk density, ASTM 279 >134 lb/ft<sup>3</sup> (2,144 kg/m<sup>3</sup>)

Weight per piece Approximately 8.65 lb (3.9 kg)

Compressive strength, ASTM >22,000 psi (151.7 MPa)

C67/C67M

Modulus of rupture >1,900 psi (13.1 MPa)

Water absorption, ASTM C67/67M

24-hour cold water 4.5% 5-hour boiling water 5.8%

Hardness (Moh scale) >7

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