

SELECTION & SPECIFICATION DATA

Type	Chemical-resistant vitrified floor tiling system
Description	Tufchem Tiling Systems are direct-bonded, pressure embedded and power grouted fully-vitrified tile flooring systems. The dense, impervious tiles feature integrally molded side joint spacers and a range of surface texture options to strike the right balance between walk work surface safety and ease of cleaning. Choose from traditional rectangular or modern hexagonal tiles available in an assortment of colors. Vibration setting compacts the epoxy Thinset™ Adhesive or Thinset Novolac Adhesive bedding to maximize effective bearing area and tenaciously bond the tiles to the substrate. Power grouting with water cleanable Pennrowel™ EZ Grout 100 or 200 makes use of the built-in spacers and produces narrow side joints.
Uses	<ul style="list-style-type: none"> • Food processing plants • Bakeries • Breweries and distilleries • Bottling plants • Meat and poultry processing plants • Pharmaceutical plants • Chemical process facilities • Institutional kitchens
Features	<ul style="list-style-type: none"> • Self-spacing tiles enable high installation productivity • Lower installed cost than conventional paver systems. • Vibration setting minimizes tile lippage • Hexagonal field tiling conforms tightly to changing slopes on floors with central drains • Numerous solid and mingled color options create a uniquely attractive floor • Choice of abrasion-resistant integrally molded surface textures to provide well-balanced slip resistance. • Ease of cleaning for different processing environments. • Antimicrobial by design. Consult Armor for details.
Limitations	<ul style="list-style-type: none"> • Not suitable for vertical wall tile applications. • For hotter or more aggressive chemical service, set and grout the tiles using conventional methods using Furalac™ Red Panel Grout, Pennchem™ Tile Grout, or Pennchem™ CIP Tile Grout to suit the exposure conditions.

INSTALLATION GUIDANCE

Reference Specifications	CES-311 Installation of Tufchem™ Tiling Systems
Installation Conditions	Tufchem Tiling Systems components are designed to be installed at temperatures between 50°F and 90°F (10°C and 32°C). Materials and substrate should be acclimated to the air temperature prior to installation, and the air temperature should be between 50°F (10°C) and 90°F (32°C) during installation and cure.

CURE TIME

Installation Temperature	Initial Set	Full Cure
70°F (21°C)	7 hours	5 days

SAFETY

Safety	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 safety data sheets before using.
Ventilation	Provide thorough air circulation during and after installation until the material has cured when used in enclosed areas.

PACKAGING & ESTIMATING

Tufchem Tile are offered primarily in hexagonal and rectangular shapes.

Standard tile sizes are as follows:

4" x 8" x 3/4" (100 x 200 x 18 mm)

4-1/4" x 5" hexagonal x 3/4" (108 x 127 mm x 18 mm)

Membranes, leveling beds, tile adhesives and grout components are packaged as outlined on individual data sheets. Consult Armor for specific details.

Storage & Shelf Life

Maintain products in original packaging and sealed until ready for use. Estimated shelf life of components is 12 months when stored in a dry area at 70°F (21°C). Actual shelf life may vary with storage conditions. Tile pieces have an indefinite shelf life.

If there is any question with respect to the quality of the components check reactivity prior to use. For assistance consult with Armor.

TYPICAL PHYSICAL PROPERTIES

Colors	Numerous solid and mingled colors
Shape availability	Rectangular or hexagonal
Slip resistance	Integrally molded profiles from flat to heavily textured
Dimension tolerance , DIN 18-158	< ±0.5% in length and width
Thickness	3/4" (18-19 mm)
Flexural strength	4,400 – 9,065 psi
Water absorption	<0.25%
Acid resistance, DIN EN99	No trace of deterioration
Coefficient of thermal expansion	4-5 x 10 ⁻⁶ /cm/cm/°C at 100°C
Hardness (Moh scale)	>7
Nominal joint width	5/64" (3 mm) (integrally molded)
Production method	Dry pressed

Rev 05/2026

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