

Tufchem® Tiling Systems

PRODUCT OVERVIEW



Tufchem Tiling Systems

Superior Performance by Design

Innovative

Tufchem® Tiling Systems are durable, hygienic floor and wall finishes designed for the most demanding food, beverage, and pharmaceutical processing environments. Available in a striking array of colors, impervious fully vitrified Tufchem tiles feature a choice of integrally molded slip-resistant surface textures in either traditional rectangle or contemporary hexagon format. A complementary range of coordinating tile accessories, chemically resistant adhesive and grout, and expansion joint materials completes the system.

Durable

Our fully vitrified tiles feature discrete, half-height spacers that touch when the tiles are butted together. In addition to producing consistently narrow 2mm (1/16") side joints, the spacers enable vibration setting when service conditions favor the use of compatible grouts. When properly executed, vibration setting speeds installation and enhances impact resistance by:

- (a) Maximizing contact between the bonding surfaces of the tile, adhesive, and substrate.
- (b) Minimizing voids under the tiles that can lead to flexural cracking under loads.
- (c) Leveling adjacent tiles to reduce lipped edges and minimize the risk of chipped tiles.

Wheeled traffic rolls over the narrow 2mm (1/16") side joints quietly and with less impact on tile edges. Hexagonal tiles conform to the contours of sloped floors better than rectangular tiles set in a running bond pattern, reducing lippage on floors that slope toward a central drain.

Hygienic

Tufchem® Tiling Systems are antimicrobial by design with both materials and installation procedures engineered to optimize hygiene. Vibration setting and power grouting installation techniques eliminate voids and potential microbial harborage sites in the tile lining system, while impervious tiles do not support microbial growth. For added protection, Corrosion Engineering epoxy adhesives and grouts contain antimicrobial agents.

Chemical Resistant

Sanitizers used in hygienic processing environments are becoming more aggressive—and more corrosive—to manage increasingly resistant strains of bacteria, mold, and fungus. Corrosion Engineering offers a comprehensive range of high-performance adhesives, grouts and mortars to address tough corrosion challenges.



Vibration Set System

Installation



FINISHED FLOOR



The Tufchem® Tiling Vibration Set System makes full use of the tiles' integrally molded spacer lugs to produce a floor with impressive impact resistance. Unwaxed tiles are vibrated into Thinset® Adhesive, reducing lippage and voids under the tiles that can lead to chips and cracks. To fully penetrate the narrow 2mm (1/16") side joints, Penntrowel® Grout is deconstructed, and its highly flowable wet and dry components are installed separately. Power grouting and floor buffing equipment make quick work of grouting and cleaning larger areas.

1. Spread Thinset® Adhesive on prepared concrete and set tiles on fresh adhesive with spacers touching.
2. Vibrate tiles into adhesive bedding before adhesive loses plasticity then allow adhesive to cure.
3. Install deconstructed Penntrowel® Water Cleanable Grout components and power grout.
4. Scrub grout residue from tile surfaces using warm, soapy water and rinse thoroughly.

While running bond (brick bond) is the most popular arrangement for rectangular tiles, the side joint spacers positioning accommodate stacked bond or herringbone patterns as well. Hexagonal tiles form a single tight honeycomb pattern that minimizes lippage on complex sloped floors.

Vibration Set System installation requires special knowledge and equipment including vibration setting, power grouting, and floor buffing machines. The sequence and timing of the installation steps are critical to achieving a durable, hygienic, chemical resistant floor. Installers must complete classroom and practical training to qualify for factory-authorized status. Contact your Corrosion Engineering representative for referrals to experienced installers.

For over 70 years, Corrosion Engineering has provided sophisticated solutions to complex corrosion problems facing the chemical process, food & beverage, and power industries. Our portfolio of chemical resistant linings and materials protects steel and concrete structures such as floors, wastewater trenches & pits, equipment pads & piers, containment dikes, tanks, and process vessels, as well as power plant chimneys & ductwork.



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Corrosion Engineering offers a variety of products to complement its acid brick and vitrified tile flooring materials to protect industrial facilities against chemical deterioration.



Penntrowel® Systems trowellable, slurry-broadcast, and laminate polymer linings provide durable corrosion protection for floors and other concrete structures.



Substitute Tufchem® Grout, Acrocast® Polymer Concrete, or Pennchem® Novolac Grout for Portland cement concrete pads, piers, and footings in corrosive service.



To waterproof elevated slabs, select from a versatile range of asphaltic membranes: hot melt Penncoat® 101 Membrane, cold-applied Tufchem® II Membrane, or adhesively bonded Penncoat® 600 Membrane sheet.



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