



REMR MATERIAL DATA SHEET CM-SE-1.38

CONCRETE SEALER: UNI-TILE SEALER

(Supersedes previously issued CM-SE-1.38)

1. NAME

UNI-TILE SEALER

for use in animal holding facilities by Federal agencies.

2. MANUFACTURER

United Coatings
E. 19011 Cataldo
Green Acres, WA 99016
Telephone: (509) 926-7143

- Any of United's coatings may be applied over cured UNI-TILE SEALER without lifting or bubbling this solvent-resistant primer/sealer.
- The thin viscosity of the liquid allows UNI-TILE SEALER to penetrate very small crevices and preserve dense steel-troweled concrete, float-finished concrete, sand-blasted concrete, or similar surfaces.

3. DESCRIPTION

UNI-TILE SEALER is a two-component epoxy polyamide penetrating sealer.

Limitations: UNI-TILE SEALER is a thin penetrating sealer. Do not use it as a high-build surface coating.

4. USES, ADVANTAGES, & LIMITATIONS

Uses: UNI-TILE SEALER is used to seal porous substrates and to improve adhesion when applying epoxy and polyurethane coatings. It is also used to seal wood and concrete substrates before application of polyurethane foam.

If used on exterior surfaces without an approved topcoat, UNI-TILE SEALER will amber or darken on aging.

Substrate temperature must be minimum 50 °F (10 °C).

UNI-TILE SEALER is a superior concrete floor finish for use where chemical and abrasion resistance and cleanability are required.

5. MANUFACTURER'S TECHNICAL DATA

Mixing ratio: 1 to 1 by volume
(1A:1B)

Mixed usable pot life: 48 hr @ 75 °F (24 °C),
50% rh
24 hr @ 95 °F (35 °C),
50% rh

Solids by weight (mixed): 18% (±1)

Solids by volume (mixed): 15% (±1)

Advantages:

- The penetrating action of UNI-TILE SEALER imparts a tenacious chemical and physical bond to concrete, brick, wood, plaster, or drywall.
- UNI-TILE SEALER is authorized by U.S.D.A. for use in Federally Inspected meat and poultry processing plants. It is also approved

Dry time to touch: 30 min at 75 °F (24 °C),
50% rh

Cure time 3 hr at 75 °F (24 °C),
50% rh

Temperature limits: -70 to 150 °F (-56 to
66 °C)

Packaging and mixing: UNI-TILE SEALER is a two-component material available in 1-gal cans (3.8 l), 5-gal pails (19 l), and 55-gal drums (209 l).

Mix Part A Clear with an equal amount of Part B Clear Catalyst. Stir thoroughly for 5 min. Do not reduce the mixture. After mixing, allow a minimum of 30 min for sweat-in before using.

Shelf life of Part A and Part B components in unopened containers is unlimited. Store at temperatures between 50 and 100 °F (10 to 38 °C). Do not open containers until ready to use the material.

Coverage: Coverage rates will vary depending upon surface porosity. One coat is usually sufficient for sealing concrete and wood surfaces. Two coats may be required if substrate is extremely porous or if floor areas are subjected to a high degree of abrasion and hard use. Apply UNI-TILE SEALER at the following approximate rates:

Concrete: 250 to 300 sq ft/gal
(7.3 m²/l)

Light weight concrete: 100 sq ft/gal
(2.4 m²/l)

6. MANUFACTURER'S GUIDANCE FOR APPLICATION

Surface application: All surfaces must be clean and free of any moisture, dirt, oil, grease, soapy films, surface chemicals, or other foreign contaminants. United recommends that

new concrete be water-cured in lieu of using a curing compound.

Prior to applying UNI-TILE SEALER, use a power vacuum to remove all loose material, dirt, and dust. If concrete is badly spalled, restore loose aggregate to a reasonable condition.

Prior to acid etching, clean new concrete that has been cured with a curing compound with a proper chemical solvent - 10-percent muriatic acid solution or United's 2020 Clean-Etch.

Sprinkle muriatic acid solution or United's 2020 Clean-Etch onto the concrete surface. After the solution has stopped bubbling or foaming, scrub the area thoroughly. After scrubbing, rinse the surfaces thoroughly with liberal amounts of fresh water.

Use a non-phosphate, biodegradable chemical cleaner and water to clean concrete surfaces which are contaminated with oil, grease, dirt, etc. Use mechanical scrubbers. Rinse thoroughly with fresh water to remove all traces of the chemical cleaner.

Application: UNI-TILE SEALER may be applied by brush, roller or spray. Airless spray is the preferred method. Any airless spray equipment capable of 1,000 psi and 1/2 gal/min delivery can be used. A reversible self-cleaning spray tip with orifice size of 0.17 to 0.31 in. and minimum 40-deg fan angle is recommended. For maximum production on large projects, airless spray equipment capable of 2,000 psi and 1 gal/min delivery can be used.

Caution: Solvents in UNI-TILE SEALER are flammable. Use only in a well-ventilated area. Use explosion-proof application equipment. Avoid prolonged or repeated breathing of vapor or spray mist. Approved (MESA/NIOSH) chemical cartridge respirator should be worn by applicator. Avoid contact with eyes and contact with skin.

7. CORPS OF ENGINEERS' EVALUATION
(tested as concrete sealers only)

Physical and mechanical properties:

Percent solid
(ASTM D 1644, Method A): 18.6%

Percent moisture absorption
(ambient temp) (ASTM C 642-82):

1 day	0.78%
2 days	1.12%
4 days	1.46%
7 days	1.78%

Ratio of percent moisture absorption
for treated to nontreated specimen
(2-day submersion): 23.8%

Percent vapor transmittance (see REMR
Technical Note CS-ES-1.8):

2 days	0.30%
4 days	0.54%
7 days	0.88%

Ratio of percent vapor transmittance
for treated to nontreated specimen
(2-day diffusion): 18.8%

8. ENVIRONMENTAL CONSIDERATIONS

Reasonable caution should guide the preparation, repair, and cleanup phases of activities involving potentially hazardous and toxic chemical substances. Manufacturer's recommendations to protect occupational health and environmental quality should be carefully followed. Material safety data sheets must be obtained from the manufacturers of such materials. In cases where the effects of a chemical substance on occupational health or environmental quality are unknown, chemical substances should be treated as potentially hazardous toxic materials.