



Product Description

EF-CEMENTITIOUS PU is a three-component, self-leveling, high-performance water-dispersed polyurethane / cement and aggregate screed that can be applied at thicknesses ranging from 4.75 mm to 6.35 mm (3/16 in - 1/4 in). This product offers excellent resistance to impact, abrasion, and chemicals, as well as thermal shock resistance when applied at a 1/4 in. thickness. Furthermore, specially selected aggregates can be broadcast into the wet screed to enhance surface texture and traction.



SELF LEVELING



HIGH BUILD



V.O.C. APPROVED

Areas of Application

- Food processing plants, wet & dry process areas, refrigerators and freezers.
- Thermal shock areas such as: commercial kitchens, dairies, breweries, wineries and distilleries.
- Chemical processing plants, pulp and paper plants, chemical warehouses and storage facilities.
- Can also be applied over properly prepared steel surfaces.



RESIDENTIAL



INDUSTRIAL



COMMERCIAL

Environmental Approvals / Certificates

- Meets CFIA and USDA requirements for food contact / use in food plants.
- Conforms with LEEDv4 EQ credit: Low emitting materials SCAQMD Method 304-91 for architectural coatings.
- VOC content <50 g/L

Packaging and Recommended Thickness

EF-CEMENTITIOUS PU is offered in the following kit sizes:

Three components: A + B + C self-leveling version

Part A: 3.9 kg (8.6 lbs.) | Part B: 3.9 kg (8.6 lbs.) | Part C: 16.2 kg (35.7 kg)

Available in grey, red oxide, and medium blue.

Recommended Film Thickness / Coverage

1/4" / 26 sq. ft. / per kit (recommended for thermal shock)

1/8" / 43 sq. ft. / per kit

Trowel version recommendations:

Part A: 3.9 kg (8.6 lbs.) | Part B: 3.9 kg (8.6 lbs.) | Part C: 16.2 kg (35.7 kg) + add 6 kg (13.2 lbs.) of #40 mesh sand

Cove base version recommendations (up to 4" height):

Part A: 3.9 kg (8.6 lbs.) | Part B: 3.9 kg (8.6 lbs.) | Part C: 16.2 kg (35.7 kg) + add 16 kg (35.3 lbs.) of #40 mesh sand

Vertical version recommendations:

Part A: 3.9 kg (8.6 lbs.) | Part B: 3.9 kg (8.6 lbs.) | Part C: 16.2 kg (35.7 kg) + add 22.6 kg (49.8 lbs.) of #40 mesh sand

Product Properties

Working time on substrate:	15 minutes 21°C / 70°F @50% relative humidity		
Curing Schedule	10°C (50°F)	20°C (68°F)	30°C (86°F)
Foot traffic	24-48 hrs.	18-24 hrs.	16-18 hrs.
Vehicular traffic	-2 days	-1 days	-18 hrs.
Full Chemical Cure	-7 days	-5 days	-3 days

Product Application

Pour mortar mixture onto prepared surface and spread to desired thickness using a notched squeegee, trowel or screed bar. Immediately spike roll the surface to release trapped air in the mixture. Clean equipment with appropriate water. Once the product has hardened, it may only be removed mechanically.

Curing times are subject to variations determined by the ambient conditions, including air and substrate temperature, as well as relative humidity. It is imperative to shield the coating from moisture, condensation, and direct water exposure during the initial 24-hour curing period.





Surface Preparation

Remove dust, dirt, grease, oil, and all other contaminants with proper cleaner/degreaser. Prepare the surface mechanically as per ICRI-CSP2 profile by diamond grinding to ensure removal of laitance, curing agents and sealers. The compressive strength of a newly poured concrete substrate must be at least 25 MPa (3635 psi) after 28 days of cure and at least 1.5 MPa (218 psi) tensile strength. Can be applied on 7-10-day old concrete if substrate has a tensile bond strength in excess of 1.5 MPa (218 psi). Be careful with condensation (at least 3 degrees above the dew point).

Mixing Instructions

Empty container B (hardener) and container A (resin) into a large mixing pail provided. Mechanically mix the combined product for a maximum of 1 minute using a low-speed drill (300-450 rpm) to reduce air entrapment. Add gradually the cement/aggregate into the mixture and mix until homogeneous. Once the product is mixed proceed to application instructions. Do not let the product sit in container as it will rapidly start to react and cure.



Technical Properties

Thermal Compatibility, ASTM C884	Pass
Pull Off Strength, ASTM D7234	100 %
Abrasion Resistance, ASTM D4060	>435 psi (substrate failure)
Coefficient of Thermal Expansion, ASTM D696	4.35 x 10 ⁻⁵ mm/mm/°C
Compressive strength, ASTM C579	4250 psi after 24 hours 5250 psi after 7 days
Tensile strength, ASTM D580	2118 psi
Hardness, Shore D ASTM D2240	80-85
Service Temperature	Minimum -40°C (-40°F) / Maximum 120°C (248°F)
Softening Point	-130°C (-266 °F)

Product Restrictions

- Not recommended for application at temperatures below 5°C / 41°F or above 30°C / 86°F. An application below/above these temperatures will result in decreased product workability and cure times.
- Ambient humidity of the surroundings should not exceed 85% during application and during curing process.
- The substrate temperature must be at least 3°C (5.5°F) above the measured dew point. Do not apply while ambient and substrate temperature are rising.
- Do not apply on porous surfaces where a transfer of humidity may occur during the application. Do not apply on surfaces where moisture vapor can condense and freeze.
- Applied material will follow surface undulation, depressions, and lines.
- Applying this product on a substrate without a moisture barrier may risk delamination due to hydrostatic pressure.
- Freshly applied product must be protected against moisture, condensation, and water for at least 24 hours.
- Surface discoloration of product will occur upon prolonged exposure to UV rays. Use of a clear, UV resistant topcoat may not prevent discoloration of underlying materials.
- Direct-fired gas or kerosene heaters produce byproducts that can affect the curing process and must be turned off or properly exhausted.

Disclaimer and Warranty

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