

PRODUCT NAME

# Tuff-Flex™ CA

## One Component, Chemically Cross-linked Wall Coating



MANUFACTURER

Gemite® Products Inc.

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FEATURES

- Permanently seals moving cracks
- Totally waterproofs
- Excellent elongation and recovery at low temperatures
- Continuous Elongation (built into the “molecular chain”)
- Long term adhesion and durability
- Highly breathable
- Highly resistant to carbon dioxide diffusion
- Does not contain “plasticizers”
- Exceptionally UV light resistant
- Dirt resistant = stays clean
- Excellent “hide”
- Excellent color stability and unlimited color selection
- Excellent chemical resistance in acid environment
- Easy application = spray or roll
- Low sensitivity to substrate moisture content
- VOC compliant & not regulated by WHIMS or TDG



PRODUCT DESCRIPTION

Basic Use

Tuff-Flex CA is a high performance, flexible waterproofing wall coating for protection of new and restoration of cracked and deteriorated concrete, masonry and stucco.

Tuff-Flex CA bridges over and seals substrate cracks due to its high elongation at ambient and very low temperatures.

Tuff-Flex CA is highly resistant to acid rain (does not contain carbonate fillers) and airborne pollutants, making it an ideal protective coating for industrial applications. The water-borne formula is breathable (releases water vapor from the substrate) but at the same time waterproof.

Composition and Materials

Tuff-Flex CA is a water borne, highly flexible coating formulated with internally cross-linked acrylic copolymer, which provides a superior weatherability, no chalking, no leaching, color stability and very high resistance to water ponding.

Limitations

Do not apply when rain is imminent. Surface and ambient temperature must not be less than 7°C (45°F), or above 32°C (90°F) during and 24 hours after the application. Fresh (green) concrete or cement plaster must be cured for at least ten (10) days prior to the application of Tuff-Flex CA. Must not freeze.

Health and Safety

Tuff-Flex CA is non-toxic and non-flammable. If contact with skin occurs, wash with water. Harmful if digested. Keep the product out of reach of children. FOR INDUSTRIAL USE ONLY. Consult MSDS for additional information.

Color

A wide variety of colors are available. The color suitability and pricing must be established by Gemite before an order can be processed.

Every effort is made to fill each order using the same batch number, but different batch numbers of the same color may be occasionally used to complete an order. It is the sole responsibility of the applicator to make certain that only one batch number is used on any one side of the building. Different batch numbers cannot be used on the same wall unless they are mixed together to ensure total color uniformity.

Packaging

Tuff-Flex CA is one component, ready-to-use liquid coating, packaged in 20 L (5.3 USG) pails.

Yield

Primer #300: 6.0 - 8.0 m<sup>2</sup>/L (244 - 326 ft<sup>2</sup>/USG).

Tuff-Flex CA Smooth: 3.5 - 4.5 m<sup>2</sup>/L @ 0.22 - 0.29 mm (143 - 183 ft<sup>2</sup>/USG @ 9 - 11 mils) thickness per one (1) coat.

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071416 Cold Fluid Applied Waterproofing  
099653 Elastomeric Coatings

*Tuff-Flex CA Textured*: 3.5 - 4.5 m<sup>2</sup>/L @ 0.22 - 0.29 mm (143 - 183 ft<sup>2</sup>/USG @ 9 - 11 mils) thickness per one (1) coat.

The actual coverage will depend on surface roughness, application technique and the thickness applied. The applicator must carry out a sample application to determine the actual coverage for the given substrate and application thickness.

**Storage and Transportation**

Shelf life of *Tuff-Flex CA* in unopened containers is two years. Store in temperatures above 4°C (40°F). Must not freeze. Packaged 36 pails per pallet.

**TECHNICAL DATA**

Viscosity (Ford Cup)	110±KU
Specific Density	1.38 g/cm <sup>3</sup>
Elongation at break (ASTM D2370)	at +23°C 400 % at -21°C 100 %
Adhesion (pull-off)	
Before freeze/thaw	> 2 MPa
After freeze/thaw	>1.5 MPa
Water absorption decrease	> 30%
Freeze thaw 150 cycles	No changes
Water Vapor Diffusion Resistance, Engelfried-Klopfer	S <sub>d</sub> < 4 m
Carbon Dioxide Diffusion Resistance, Engelfried-Klopfer	R <sub>b</sub> > 50 m
Coat thickness (incl primer)	Approx. 0.3 mm
Water Penetration Resistance	passes 160 km/hr (98 mph) wind-driven rain test over concrete block
Weatherability	unaffected by wetting and drying, freeze/thaw or ultraviolet exposure

**INSTALLATION**

Current Guide Specification and Application Instructions contain additional information specific to each application and must be followed. Contact Gemite's Technical Service for information specific to your application.

**Surface Preparation**

Remove all dirt, efflorescence, loose particles, paint, cement scaling and other foreign matter which can interfere with the adhesion of the coating. Use pressure water (at least 2-3,000 psi), or sandblast as required.

**Primers**

*Primer #300*, tinted to the same color as *Tuff-Flex CA*, must be always used.

**Crack Treatment**

*Tuff-Flex CA* can be applied directly over hairline cracks. Cracks above 0.25 mm (10 mils) have to be pre-filled by *brushing Tuff-Flex CA* into the crack before the overall application and *Reinforcing Fabric LW* may have to applied over the crack. Cracks larger than 0.8 mm (1/32") must be opened and pre-filled with a flexible caulking. Contact Gemite Technical Service for further information.



**Application**

Do not add water to *Tuff-Flex CA*. Mix thoroughly before application. Short, medium or long nap roller can be used to apply *Tuff-Flex CA*. The type of the roller and the application technique will determine the appearance. Keep a wet edge. *Tuff-Flex CA* can also be spray applied using airless paint equipment.

In some cases, due to the porosity and roughness of the substrate, two coats of *Tuff-Flex CA* may be necessary. Apply the second coat as soon as the first coat is dry to touch, or within 48 hours.

**Curing**

*Tuff-Flex CA* will cure sufficiently by air drying in 12-24 hours, depending on temperature and relative humidity.

**Clean Up**

Clean tools and equipment immediately after use with water. For dry material use MEK or Xylol.

**AVAILABILITY AND COST**

*Tuff-Flex CA* is available worldwide. Contact Gemite for the name of the nearest Representative / Distributor and pricing information. When ordering, specify the finish (smooth or textured) and color. The color suitability and pricing must be established by Gemite before order can be processed.

**MAINTENANCE**

None required. *Tuff-Flex CA* is self-cleaning. Surface dirt and dust can be easily cleaned using a detergent and water.

**WARRANTY**

A limited twelve (12) months Material Replacement Warranty is available. For details, contact Gemite's Head Office.

**TECHNICAL SERVICE**

For advice on suitability of *Tuff-Flex CA* for a specific application, specification assistance and application instructions, contact Technical Services at US 888-443-6483, or Canada 905-672-2020.