

Edco Technologies Inc. Ectoflex 646™ is a ready-to-use, flexible, crack bridging, polymer-modified cementitious-based coating. It's used to protect concrete, mortar and masonry surfaces. **Ectoflex 646™** is used for interior and exterior applications where positive or negative side waterproofing is required. **Ectoflex 646™** can be applied by rolling, hand troweling, brushing or spraying. **Ectoflex 646™**, once cured can be constantly wet and has superior aging quality when exposed to UV (ultra violet). **Ectoflex 646™ is UV stable.**

Recommended For

- Positive and negative side waterproofing.
- Protection of cementitious surfaces and reinforcing steel within.
- New and repaired concrete to provide a uniform colour and appearance.
- Architectural coating for aesthetic enhancement.
- Can be used with potable water.

Typical Uses

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|----------------------|-------------------------------|
| 1. Water reservoirs | 8. Bridges |
| 2. Holding tanks | 9. Crack repairs |
| 3. Cisterns | 10. Retaining walls |
| 4. Sewage systems | 11. Basements |
| 5. Waste water tanks | 12. Pipeline & tunnel linings |
| 6. Balconies | 13. Elevator pits |
| 7. Precast elements | 14. Building facades |

Features / Benefits

- **Solvent Free "O" VOC** (user friendly for confined space).
- Inquire about **LEED** points.
- Crack Bridging
- Flexible-Accommodates thermal movements and vibrations.
- High waterproofing capabilities for positive and negative side waterproofing.
- Superior aging qualities
- Excellent resistance to frost and de-icing salts.
- Effective protection against carbonation and environmental pollutants.
- **Ectoflex 646™** is impervious to water, chlorides, CO₂, acid rain, alkali ureas and UV penetration.
- Ready-to-use, easy mixing and handling.
- Very low permeability.
- Attractive, decorative appearance.
- Sprayable-reduces labour requirements.
- Tintable to primary colours.

Typical Physical Properties

The data shown is based on controlled laboratory tests or air-cured samples. Reasonable variations from the results may be experienced as a result of atmospheric and job site conditions. Mix entire unit of **Ectoflex 646™** when preparing specimens for performance tests.

Mix Ratio:	Pre-Measured 20kg. (44lbs) of powder to 10 litres (2.63 US gallons) of liquid polymer.
Working Time:	30 minutes @ 20°C (70 F)
Thermal Compatibility:	Short term up to 240°C (464°F)
Density:	1.60 kg/dm ³
Adhesion (Bond Strength):	Minimum 1.0N/mm ² or 1 MPA (147 psi)
Water Permeability:	None permeable to 100 psi constant pressure
Temperature Stability (After curing):	To -40°C (-40°F) and 82°C (180°F)
Elongation:	72% at tear
Water Vapour Transmission:	Permeance - 0.17 perms (9.75 x mg/Pa S m ²)
Hydrostatic Pressure:	3mm thick (1/8") 125 psi positive, 25 psi negative
Shelf Life:	1 Year
Odour (After curing):	None
UV Resistant:	Yes
Toxicity:	Non-Toxic
Crack Bridging:	50% of thickness of coating
Chloride Penetration:	0.08%

Packaging/Storage

Ectoflex 646™ is packed in units.

Component A, 10 litre jug/ 10 kg (22 lbs) of liquid per container. Component B, 20 kg (44 lbs) of powder in plastic pail.

Materials must be stored in a dry area. **Do not allow to freeze.** Further, avoid high temperature storage and direct sunlight.

Coverage Rate/Yield

1 unit (2-3 coat application) covers 96 sq. ft. (8.8 m²) @ 2 mm (80 mil) thickness. 1 mm (40 mil) thickness with each coat. Nominal thickness, dependant on substrate condition. Minimum total thickness 1.5 mm (60 mil). Coverage rate will be less if applying over reinforcing mesh. 25% more product suggested in reinforced areas.

Surface Preparation

Remove all deteriorated concrete. Substrate should be free of oil, dirt and contaminants. The surface should be roughened by mechanical methods such as water-blasting, shot blasting or other suitable means. Cavities/bug holes deeper than 3 mm (1/8") should be repaired prior to the application of **Ectoflex 646™**.

Dampen substrate just prior to application but no standing water, (Dry to touch).

Priming

If Priming is deemed necessary, Consult your Edco Technologies Inc. representative.

Reinforcement

2011 Reinforcing Mesh must be used where reinforcement is required. Reinforcement is required at all cracks, cold joints, transitions, and where otherwise specified.

Mixing

Mechanically mix with a heavy-duty drill (600 to 800 rpm) and a jiffy-type paddle with 'mud' type blade or in an appropriate size mortar mixer. Pour all of Component A (liquid polymer) into the mixing container, then slowly add Component B (powder) while continuing to stir until homogeneous and lump-free mixture is obtained. Mix for 3 to 5 minutes.

Application

Ectoflex 646™ can be applied by roller or brush in two coat application. The recommended thickness of each coat to be applied is approx 1 mm depending on substrate. The required result is achieved by applying 2 coats @ 1 mm each to achieve a total minimum thickness of 2 mm. Depending upon ambient conditions, the second coat may be applied as soon as the first coat is dry, approximately 1 to 2 hrs, or when the first coat will not be disturbed. It is suggested that the first coat and second coat be applied the same day.

Spray Application

For large areas **Ectoflex 646™** can be applied using a Grayco President or Bulldog pressure spraying machine with a suitable spray nozzle as would commonly be used for heavy cement-base paste.

Curing

Allow five days of air drying at 20°C (70°F) prior to being placed into service. Protect fresh applications from rain, strong wind and intense sunlight for 12 hours. Below grade tanks may require longer cure time, due to high humidity.

Limitations

- The recommended maximum application thickness is 1 mm nominal per coat.
- The minimum ambient and surface temperatures should be 5°C (41°F) and rising at the time of application.
- Do not apply coating when surface temperature is 32°C (90°F) and above.
- **Ectoflex 646™** must be mixed to a lump free consistency. Do not over mix (5 minutes maximum).
- Apply only on a clean, sound, properly, prepared substrate.
- **Ectoflex 646™** should not be subjected to sharp, concentrated point loads.
- Avoid contact with solvents and/or solvent based products.

Clean Up

Ectoflex 646™ is water-soluble and must be cleaned immediately from tools and splashed areas.

Job Site Service

To the extent job services are provided, such services are in the nature of technical recommendations only and will not include (I) supervision, or (II) quality control of the application procedures and engineering details.

Warranty Notice

Edco Technologies Inc. products are designed to be used in the construction industry and should be applied by competent persons in accordance with current published instructions. We cannot be held responsible for difficulty caused by other materials and conditions or by improper workmanship. Edco Technologies Inc. reserves the right to have the true cause of any difficulty determined by accepted test methods by an independent party. Any claim regarding product defect must be received in writing within one (1) year from date of shipment. No claim will be considered without such written notice or after the specified time arrival.

Disclaimer of Warranties and Limitations of Liability

Edco Technologies Inc. warrants that if any goods supplied proved defective in workmanship or material, the seller shall replace them or refund the purchase price. The warranty is made in lieu of any and all other warranties express or implied.