

## EDCO TECHNOLOGIES INC.

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DATA

**ECTOflex**  
646



### Description

Edco Technologies' **ECTOFLEX™ 646** is a ready-to-use, flexible, **crack bridging**, polymer-modified cementitious-based coating for the protection of 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).

### Recommended For

- Positive and negative side waterproofing
- Protection of cementitious surfaces
- New and repaired concrete to provide a uniform color and appearance
- Architectural coating for aesthetic enhancement
- For use with potable water (NSF Approved)

### Typical Uses

Water reservoirs, tanks and containers  
Basements  
Building facades  
Elevator pits  
Pre-cast elements

Bridges  
Crack repair  
Retaining walls  
Roofs and repair  
Pipeline and tunnel linings  
Sewage systems

### Features / Benefits

- 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, CO<sup>2</sup>, acid rain, alkali ureas and UV penetration.
- Ready-to-use, easy mixing and handling.
- Very low permeability.
- Attractive, decorative appearance, tint able to primary colours
- Sprayable-reduces labor requirements.
- Solvent Free

### 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 20 kg. (44 lbs) of powder to 10 litres (2.63 US gallons) of liquid polymer.

**Working Time:** 30 minutes @ 20°C (70°F)

**Re-coat Time:** Allow 6 hours minimum between coats @ 20°C (70°F) at low relative humidity.

**Thermal Compatibility:** Short term up to 240°C (464°F)

**Density:** 1.60 kg / dm<sup>3</sup>

**Adhesion (Bond Strength):** minimum 1.0N/mm<sup>2</sup> or (MPA)

**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 Vapor Transmission:** Permeance = 0.17 perms (9.75 x mg/Pa S m<sup>2</sup>)

**Hydrostatic Pressure:** 3 mm thick (1/8") 125 psi positive, 25 psi negative

**Shelf Life:** One Year

**Odour (After curing):** None

**UV Resistant:** Yes

**Toxicity:** Non-toxic

**Crack Bridging:** 50 % of thickness of coating

**Chloride Penetration:** 0.08 %

### **Packaging**

**ECTOFLEX™ 646** is packaged in units.

Component A, 10 liters (22 lbs./10 kg) of liquid per container.

Component B, 20 kg (44 lbs.) of powder in plastic pail.

### **Coverage Rate/Yield**

1 unit (2 -3 coat application) covers 96 sq. ft. (8.8 m<sup>2</sup>) @2 mm (80 mil) thickness. 1 mm (40 mil) thickness with each coat. Nominal thickness, dependent on substrate condition. Minimum total thickness 1.5 mm (60 mil).

Coverage rate will be less if applying over reinforcing mesh.

### **Surface Preparation**

Remove all deteriorated concrete. Substrate should be free of all oil, dirt and contaminants. The surface should be roughened by mechanical methods such as water-blasting, shot-blasting or other suitable means. Areas deeper than 4 mm (1/8") should be repaired prior to the application of **ECTOFLEX™ 646**. Contact your local Edco Technologies representative for repair product information.

### **Mixing**

Mechanically mix with a heavy-duty drill (600 to 800 rpm) and a jiffler-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 a homogeneous and lump-free mixture is obtained. Mix for 3 to 5 minutes.

### **Priming**

Priming is deemed necessary. Consult your Edco Technologies representative.

### **Application**

**ECTOFLEX™ 646** can be hand applied by roller and brush in a two coat application. Primer can be hand applied by roller using one thin slurry coat application. The recommended thickness of the coat to be applied is approximately 1 mm thick depending on substrate roughness. The required performance is achieved by applying two coats. Depending upon ambient conditions, the second coat may be applied as soon as the first coat is dry, approximately 6 hours, or when it cannot be marred with a trowel.

### **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.

### **Limitations**

- The 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 uniform consistency, without lumps (3 minutes minimum). 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.
- Edco Technologies' 2011/2010 reinforcing maybe required.

### **Clean Up**

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

### **Job Site Service**

To the extent job site 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' 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 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 interval.

### **Disclaimer of Warranties and Limitations of Liability**

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