

# Expancote\* ET550



CONSTRUCTION CHEMISTRY

## Tar extended epoxy resin coating

### Uses

To provide protection to concrete and metal structures, viz. marine structures, pipe lining & coating, sheet piling, industrial coating in power plants, oil & gas refining plants, sewage treatment plants, effluent plants, channels, culverts, tank foundations, below ground protection for concrete & metal structures etc.

### Advantages

High film build in a single application  
Easily applied by brush, roller and airless spray  
Provides long term protection, water & weather resistant

### Description

Expancote\* ET550 is a thixotropic, tar extended, two pack epoxy formulation, containing inert, reinforcing fillers and a special blend of solvents. It is supplied in pre-measured quantities ready for site mixing and use.

### Design criteria

Expancote\* ET550 is designed to be applied in two coats to achieve a dry film thickness in between 200 to 350 microns.

### Specification

Corrosion, chemical and abrasion resistant lining

The chemical and abrasion resistant coating shall be Expancote\* ET550, a high build, solvent containing, tar extended two pack epoxy material, specifically designed to provide a tough, impermeable and resistant film.

### Properties

<b>Specific gravity</b>	: 1.35 - 1.45
<b>Colour</b>	: Black
<b>Volume solids</b>	: Min 70%
<b>Solids by weight</b>	: Min 83%
<b>Touch Dry</b>	: 6-7 hours @ 23°C 3-4 hours @ 35°C
<b>Full Cure</b>	: 7 days @ 23°C 5 days @ 35°C
<b>Overcoating times</b>	: Min Max
23°C	24 hours 96 hours
35°C	15 hours 72 hours
45°C	10 hours 24 hours
<b>The fully cured coating is resistant to</b>	Water Saturated sodium chloride Sewage water Dilute mineral acids and alkalis Salt solutions.

The local Expanchem office should be consulted for resistance to specific chemicals and conditions

### Technical support

Expanchem Fospak offers a comprehensive range of high performance, high quality flooring, jointing and repair products for both new and existing floor surfaces. In addition, the company offers a technical support service to specifiers, end users and contractors. It is also able to offer on-site technical assistance, an AutoCAD facility and dedicated specification assistance in locations all over the world.

### Instructions for use

#### Preparation

#### Concrete surfaces

All surfaces must be dry, smooth, sound and free from debris and loose material.

Surfaces must be free from contamination such as oil, grease, dust, loose particles and organic growth. Concrete surfaces must be fully cured, laitance free and free from any traces of shuttering, release oils and curing

All surfaces should then be prepared to remove all foreign material, surface laitance and provide a suitable key for Expancote\* ET550

All blow holes and imperfections should be filled with Expanmortar\* FC or Expanmortar\* FC(B). Consult separate data sheet for pot life and overcoating time.

#### Steel surfaces

All surfaces should be prepared to meet the requirements of BS 4232, First Quality or SA2½ and to achieve a blast profile of 50 - 75 microns.

The lining work should be programmed so that newly cleaned steel is coated as soon as possible before the formation of rust or scale.

#### Mixing

The contents of the base can should be stirred thoroughly to disperse any loose settlement. The entire contents of the hardener can should then be added to the base container and mixed thoroughly until a uniform colour and consistency are obtained, taking particular care to scrape the sides and bottom of the container. It is recommended that mechanical mixing be employed using a heavy duty, slow speed electric drill, fitted with Expanchem Mixing Paddle.

#### Application

The minimum application temperature is 5°C.



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All surfaces should be treated with at least two coats of Expancote\* ET550.

The first coat should be applied by brush, roller or airless spray to achieve a uniform coating with a minimum wet film thickness of 200 microns. This coat should be allowed to dry for 16 hours at 20°C.

The second coat should be applied as above, again achieving a minimum wet film thickness of 200 microns.

When using airless spray equipment, a nozzle pressure of 2000 psi (140 bar) and a nozzle orifice of 0.031 inch are required at 20°C.

### Cleaning

Expancote\* ET550 should be removed from tools and equipment with Expanchem Solvent 102\* immediately after use. Cured material can only be removed mechanically.

### Limitations

Expancote ET550 should not be applied over existing coatings.

Application should not be undertaken if the temperature is below 5°C, or is 5°C and falling, nor when the prevailing Relative Humidity exceeds 90%.

The surface temperature must be at-least 3°C above the dew point at all times to prevent moisture condensation.

Expancote\* ET550 is not colour stable when exposed to direct sunlight, nor when in contact with some chemicals.

### Estimating

#### Supply

**Expancote\* ET550** : 2.50 Kg. Packs

**Expanchem Solvent 102** : 5 liter cans

#### Coverage

**Expancote\* ET550** : 3.50 m<sup>2</sup> / Kg. / coat  
@ 200 microns wft

The coverage figure is theoretical - due to wastage factors and the variety and nature of substrates, practical coverage figures may be substantially reduced.

### Storage

When stored in dry air conditioned stores at temperatures between 5°C and 30°C in the original, unopened containers all products have a shelf life of 12 months.

If stored at high temperatures the shelf life will be reduced. Air conditioned storage at high ambient temperatures is recommended.

### Precautions

#### Health and safety

Expancote\* ET-550, Expanprime\* 25 and Expanchem Solvent 102 should not come in contact with the skin and eyes, or be swallowed. When using Expanchem Solvent 102 ensure adequate ventilation and avoid inhalation of vapour. Some people are sensitive to resins, hardeners and solvent.

Wear suitable protective clothing, gloves and eye protection. The use of barrier creams provides additional skin protection. In case of contact with the skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent.

#### Flash points

**Expancote\* ET550** : 26°C

**Expanchem Solvent 102** : 33°C

For further information, refer to the Product Material Safety Data Sheet.



