Product reference: 3/52

Product title: Zip E

Valid from: 4th July 2006

Last reviewed: November 2019

Type

An epoxy glassflake coating, intended for a single coat application.

Suggested use

Zip E will provide cost effective, durable protection in aggressive atmospheric conditions and aquatic immersion environments. Zip E has excellent application characteristics and edge coverage in single coats. Zip E has good cosmetic appearance and gloss. Zip E may be used for structural steel, bridges, pilings decks, externals of process vessels/pipelines, jetties, ships hulls and other marine environments.

Limitations

Unsuitable for immersed service in some solvents and chemical service environments. Temperature limit immersed is 50ºC with a post cure (45º with an ambient temperature cure), no immersed limit is 90ºC).

Health & safety

Before handling or using this product, the material safety data sheet should be read, and all precautions observed.

Surface preparation

Metals: For best results Grit blast to ISO 8501-1 Sa 2½ standard or equivalent. (For full details refer to Corrocoat Surface Preparation Specification SP1.) Zip E can also be applied to mechanically prepared or water blasted surfaces or were Plasmet ZF has been used as a primer.

Concrete: Priming is required, see Corrocoat Surface Preparation sheet SP5, use Plasmet ECP as the primer.

Application equipment

Brush or short haired roller.

Application

Airless Spray pump minimum 45:1 ratio, with an output of at least 4 litres per minute. The pump should be fitted with a leather/Teflon seal combination and all fluid filters removed. Use nylon lined 10mm (⅜”) internal bore spray line with a short 6.5mm (¼”) whip and a large bore spray gun fitted with a swivel connector. 17 to 23 thou reversible spray tip is recommended. Spray tip and fan pattern will vary and should be selected to suit the nature of the work. Fluid pressure approximately 4,000PSI depending on temperature, spray line length, etc. Zip E should not be applied or used at temperatures below 5ºC.

Pot life

Generally, 70-90 minutes using the standard hardener at 20ºC. Pot life will vary significantly with temperature.

<table>
<thead>
<tr>
<th>Temp</th>
<th>10ºC</th>
<th>20ºC</th>
<th>25ºC</th>
<th>30ºC</th>
<th>35ºC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gel Time</td>
<td>180min</td>
<td>84min</td>
<td>73min</td>
<td>57min</td>
<td>42min</td>
</tr>
</tbody>
</table>

Thinners

The performance of this product will be adversely affected by the use of solvent based thinners. Under normal application conditions it is not anticipated that any thinners will be required with this product.

Packaging

5, 10 and 20 litre composite kits. (Other sizes may be available upon request).
**Product reference:** 3/52

**Product title:** Zip E

**Valid from:** 4th July 2006

**Last reviewed:** November 2019

**Catalyst / hardener type**
Modified Amine Adduct.

**Storage life**
2 years minimum in unopened tins, stored at 5°C-40°C.

**Colour availability**
White and light grey as standard. Other colours available on request, price of material subject to colour and quantity.

**NOTE:** This product is formulated to give optimum corrosion resistance. Due to the nature of the polymerisation process of this product, it is not possible to guarantee colour matching or colour stability. Where colour stability is of paramount importance, it is recommended that Zip E is over coated with Corrothane AP1.

**Recommended DFT**
Dependent upon intended use, geometry of work and service conditions. Zip E is normally applied to achieve DFT's of 200 to 1,000 microns by applying at 10% greater WFT's. Single coat application is preferred but multiple coats may be used to achieve the required DFT, refer to data on overcoating times.

**Volume solids**
Greater than 95%.

**Practical coverage rate**
Approximately 0.6 litres/m2 at 500 microns DFT.

**NOTE:** This information is given in good faith, but consumption may increase dependent on the environmental conditions, geometry, nature of work undertaken and the skill and care of application. Corrocoat accept no responsibility for any deviation from these values.

**Specific gravity**
Mixed: 1.20 g/cm³

**Flash point**
Base: 56°C

**Mixing ratio**
76.7:23.3 Base to Hardener by weight / weight. Plural Spray Grade 74.97:25.03

**Elongation to break**
4% (BS 6319, part7)

**Impact resistance**
14 Joules (BS 3900 part E3)

**VOC level**
7.5g / litre

**Adhesion**
Greater than 15 MPa (ASTM D 4541)

**Overcoating**
Where multiple coats are required, overcoating may take place after 3 hours at 20°C. Wet on wet applications are acceptable. The maximum overcoating time is 72 hours at 20°C. Overcoating times will reduce significantly at higher temperatures and/or in strong sunlight. The minimum overcoating time at 10°C is 24 hours, refer to Corrocoat Technical Services for overcoating instructions below 10°C.

**Tack free time**

<table>
<thead>
<tr>
<th>Temp</th>
<th>10°C</th>
<th>20°C</th>
<th>25°C</th>
<th>30°C</th>
<th>35°C</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tack-free</td>
<td>&lt;12 hrs</td>
<td>4hrs</td>
<td>4hrs</td>
<td>3hrs</td>
<td>2hrs</td>
</tr>
</tbody>
</table>
CORROCOAT

Product reference: 3/52

Product title: Zip E

Valid from: 4th July 2006

Last reviewed: November 2019

Cure time
Tack-free in less than 3.5 hours, full cure 4 days at 20°C. Tack-free and full cure values will vary subject to ventilation and temperature.

Cleaning solvent
For best results use Corrocoat Epoxy Equipment Cleaner.

All values are approximate. Physical data is based on the product being in good condition before polymerisation, correctly catalysed and full cure being attained. Unless otherwise stated, physical data is based on a test temperature of 20°C, test results may vary with temperature. Information regarding application of the product is available in the Corrocoat manual. Should further information be required, please consult Corrocoat Technical Services.