

Product reference: 3/52

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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 50°C with a post cure (45° with an ambient temperature cure), no immersed limit is 90°C).

### 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 where 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 ( $\frac{3}{8}$ " ) internal bore spray line with a short 6.5mm ( $\frac{1}{4}$ " ) 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 5°C.

### Pot life

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

Temp	10°C	20°C	25°C	30°C	35°C
Gel Time	180min	84min	73min	57min	42min

### 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).

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### 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/m<sup>2</sup> 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/cm<sup>3</sup>

### 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

Temp	10°C	20°C	25°C	30°C	35°C
Tack-free Time	<12 hrs	4hrs 30 min	4hrs	3hrs 30 min	2hrs 45 min

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### 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.

Reviewed 07/2006  
Revised 07/2010  
Reviewed 02/2014 (No changes)  
Reviewed 05/2016 (No changes)  
Revised 03/2017  
Revised 09/2017  
Revised 04/2018  
Revised 05/2018  
Revised 11/2019

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.

**CORROCOAT**

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