

Corrocoat

Product reference 3/52 A

Product title Zip E

Valid from 4th July 2006

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 many solvents and chemical service environments. Temperature limit immersed is 50°C, non immersed limit 90°C.

Health and 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 SIS 05 5900 SA 2½ standard. (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

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 (3/8") internal bore spray line with a short 6.5mm (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. Zip E may be applied with a brush or short-haired roller.

Pot life

Generally 50 –60 minutes using the standard hardener at 20°C. Pot life will vary significantly with temperature.

Temperature °C	4	10	20	30	30*	40*
Pot life	6 hrs	150 mins	60 mins	30 mins	50 mins	35 mins

* Using "tropical" grade hardener, mix ratio for temperate and tropical hardener is the same.

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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.

Packaging

10 and 20 litre composite kits. (Other sizes may be available upon request).

Catalyst/hardener type

Modified amine adduct.

Storage life

Base and hardener: 12 months in unopened tins store away from heat sources and direct sunlight.

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 on 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 overcoated with Corrothane AP1.

Recommended DFT

Dependent upon intended use, geometry of work and service conditions. Zip E is normally applied to achieve DFTs of 200 to 1,000 microns by applying at 10% greater WFTs. Single coat application is preferred but multiple coats may be used to achieve the required DFT, refer to data on over coating 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 upon the environmental conditions, geometry, nature of work undertaken and the skill and care of application. Corrocoat accepts no responsibility for any deviation from these values.

Specific gravity

Base: 1.202 g/cm³ hardener: 1.061 g/cm³.

Flash point

35°C.

Mixing ratio

71.5 : 28.5 base to hardener by weight/weight.

Note: Mix ratio of temperate and tropical grade of hardener is the same.

Elongation to break

4% (BS 6319, part 7).

Impact resistance

14 Joules (BS 3900 part E3).

Voc level

37.2 gms/litre.

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Adhesion

187 kg/cm².
(ASTM D 1002)
(BS 3900 part F11) applied onto an S.A 2.5 near
3 surface.

Cathodic disbondment

0mm disbondment and 0mm ion spread on a 300
micron film.

Overcoating

Where multiple coats are required, over coating may
take place after 3 hours at 20°C. The maximum over
coating 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

Temperature °C	5°C	10°C	20°C	30°C	40°C
Track-free time	9 hrs	6.5 hrs	3.5 hrs	3 hrs hrs	2 hrs

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.

Physical data is based on the product being in good condition before
polymerisation, correctly catalysed and full cure being attained.

Information regarding application of the product is available in the Corrocoat
manual. Should further information be required, please consult Corrocoat
Technical Services.