SIGMA EP 112 MIOCOAT

4 pages

August 2012
Revision of October 2007

Description

two component high solids micaceous iron oxide pigmented polyamine cured recoatable epoxy coating

PRINCIPAL CHARACTERISTICS

- general purpose epoxy build coat in protective coating systems for steel and concrete structures exposed to atmospheric land or marine conditions
- good adhesion characteristics for subsequent coats
- free from lead and chromate containing pigments
- excellent durability
- easy application, both by airless spray and brush
- VOC compliant
- resistant to temperatures up to 200°C in dry atmospheric exposure conditions
- approved Network Rail RT 98 item 7.2.1
- registered as Highway Agency item 112

COLOURS AND GLOSS

dark grey, light grey – eggshell

BASIC DATA AT 20 °C

(1 g/cm³ = 8.35 lb/US gal; 1 m²/l = 40.7 ft²/US gal)

(data for mixed product)

Mass density	1.8 g/cm³
Volume solids	70% ± 2%
VOC (UK PG 6/23(92) appendix 3)	max. 245 g/l (approx. 2.0 lb/gal) (UK PG 6/23(92) Appendix 3)
Recommended dry film thickness	75 - 150 µm depending on system
Theoretical spreading rate	7.0 m²/l for 100 µm
Touch dry after	2 hours at 20 °C
Overcoating interval	min. 8 hours * max. 6 months
Full cure after	7 days * at 20 °C (data for components)
Shelf life (cool and dry place)	at least 24 months * see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- steel; blast cleaned to ISO-Sa2½
- during application and curing a substrate temperature down to +5°C , overcoating times are affected as stated in the tables
- substrate temperature at least 3°C above dew point
- maximum relative humidity during application and curing is 85%
- previous suitable coat; dry and free from any contamination

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mixing ratio by volume: base to hardener 80 : 20

INSTRUCTIONS FOR USE

- the temperature of the mixed base and hardener should preferably be above 15°C, otherwise extra solvent may be required to obtain application viscosity
- too much solvent results in reduced sag resistance and slower cure
- thinner should be added after mixing the components

Pot life: 6 hours at 20 °C

AIR SPRAY

Recommended thinner	Thinner 91-92
Volume of thinner	10 - 15%, depending on required thickness and application conditions
Nozzle orifice	1.5 - 3 mm
Nozzle pressure	0.3 - 0.4 MPa (= approx. 3 - 4 bar; 44 - 58 p.s.i.)

AIRLESS SPRAY

Recommended thinner	Thinner 91-92
Volume of thinner	5 - 10%, depending on required thickness and application conditions
Nozzle orifice	approx. 0.48 - 0.58 mm (= 0.019 - 0.023 in)
Nozzle pressure	15 MPa (= approx. 150 bar; 2176 p.s.i.)

BRUSH/ROLLER

Recommended thinner	Thinner 91-92
Volume of thinner	0 - 5%

CLEANING SOLVENT

- Thinner 90-53

Film thickness and spreading rate

theoritical spreading rate m2/l	9.3	7.0	4.7
dft in µm	75	100	150

Overcoating table for Sigma EP 112 Miocoat

substrate temperature	5°C	10°C	20°C	30°C	40°C
minimum interval	36 hours	16 hours	8 hours	6 hours	4 hours
maximum interval	6 months	6 months	6 months	3 months	1 month

- for polyurethane paints the minimum overcoating time should be raised with 100%

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Curing

Curing table for Sigma EP 112 Miocoat for dft up to 100 µm

substrate temperature	full cure	dry to handle
5°C	21 days	18 hours
10°C	15 days	8 hours
15°C	10 days	6 hours
20°C	7 days	4 hours
25°C	5 days	4 hours

– adequate ventilation must be maintained during application and curing (please refer to sheets 1433 and 1434)

Worldwide availability

Whilst it is always the aim of Sigma Coatings to supply the same product on a worldwide basis, slight modification of the product is sometimes necessary to comply with local or national rules/circumstances.
Under these circumstances an alternative product data sheet is used.

REFERENCES

Explanation to product data sheets	see information sheet 1411
Safety indications	see information sheet 1430
Safety in confined spaces and health safety	
Explosion hazard - toxic hazard	see information sheet 1431
Safe working in confined spaces	see information sheet 1433
Directives for ventilation practice	see information sheet 1434
Cleaning of steel and removal of rust	see information sheet 1490

SAFETY PRECAUTIONS

– for paint and recommended thinners see safety sheets 1430, 1431 and relevant material safety data sheets
– this is a solvent borne paint and care should be taken to avoid inhalation of spray mist or vapour as well as contact between the wet paint and exposed skin or eyes

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