

SIGMA COLTURA EP FLOORING

4 pages

10 May 2004

DESCRIPTION

three component, solvent free, self leveling epoxy floor coating

PRINCIPAL CHARACTERISTICS

- intermediate or final coat for Sigma Coltura floorcoat systems
- suitable for heavy exposed floors (indoors and outdoors) such as gallery-, storeroom- and showroom floors
- excellent resistance to mechanical stress and impact
- excellent abrasion resistance
- easy cleaning
- anti-skid properties can be achieved in several ways
- good chemical resistance (see Sigma Coltura resistance list)

COLOURS AND GLOSS

from stock	RAL 7001, RAL 7032 - gloss
made to order	RAL 1001, RAL 5024 - gloss

Note:

Because slight colour deviation may occur between batches, material with different batch numbers should not be used on one floor area, if Sigma Coltura EP Flooring is applied as final coat.

BASIC DATA AT 20°C

(1 g/cm³ = 8.25 lb/US gal; 1 m²/l = 40.7 ft²/US gal)
(data for mixed product)

Mass density	1.64 g/cm ³
Volume solids	100%
VOC (supplied)	max. 0 g/l (0 lb/gal)
Recommended dry film thickness	2000 µm
Theoretical spreading rate	0.5 m ² /l (0.3 m ² /kg) for 2000 µm depending on the roughness of the substrate
Resistant to tread	24 hours *
Overcoating interval	min. 24 hours * max. 7 days *
Full cure after	7 days *

(data for components)

Shelf life (cool and dry place) at least 12 months

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- previous coat; (Sigma Coltura EP Impregnating primer) sound, dry and free from any contamination
- substrate and ambient temperature should be between 10°C and 30°C during application and curing
- relative humidity should not exceed 85%
- substrate temperature should be at least 5°C above dew point

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INSTRUCTIONS FOR USE

mixing ratio by weight:	base	hardener	filler
	14	3.1	7.9

- material temperature should be between 10°C and 30°C
- mix base and hardener with a variable speed mechanical mixer thoroughly for 1 minute
- add the filler while stirring and stir thoroughly for 2 minutes
- fill the mixture into another can and stir for 1 minute until it is homogeneous
- the speed of the mixer should not exceed 800 rpm to avoid air entrapment

Induction time none

Pot life 25 minutes at 20°C

APPLICATION

Tools spiked roller, trowel, Swedish knife
 Recommended thinner no thinner should be added

For application pour an appropriate amount of the mixture on the suitably prepared subfloor and spread it evenly by trowel or Swedish knife. Use a spiked roller for avoiding air entrapment.

Application on sloping areas

For application of Sigma Coltura EP Flooring on sloping areas Sigma Coltura Thixmiddel can be added (max. 4% by weight) after mixing of base hardener and filler.

Note:

Sigma Coltura EP flooring is self leveling, resulting in a smooth and filling layer. Due to this property, a smooth and leveled subfloor with a maximum slope of 5 mm/m is required.

Special working methods are necessary if the inclination exceeds this slope.

SAFETY PRECAUTIONS

for paint and recommended thinners see safety sheets 1430, 1431 and relevant material safety data sheets

although this is a solvent free paint, care should be taken to avoid inhalation of spray mist as well as contact between the wet paint and exposed skin or eyes

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ADDITIONAL DATA

Overcoating table for Sigma Coltura EP Flooring

substrate temperature	10°C	15°C	20°C	25°C
minimum interval	36 hours	30 hours	24 hours	16 hours
maximum interval	7 days	7 days	7 days	7 days

Overcoating table for Sigma Coltura PUR Finish 1K SF Blank

substrate temperature	10°C	15°C	20°C	25°C
minimum interval	48 hours	48 hours	36 hours	24 hours
maximum interval	3 days	3 days	3 days	3 days

for intervals exceeding the maximum overcoating interval, the surface has to be roughened sufficiently before overcoating

- surface should be dry and free from any contamination

Curing table

substrate temperature	tack free	resistant to tread	full cure
10°C	24 hours	36 hours	14 days
15°C	18 hours	30 hours	10 days
20°C	14 hours	24 hours	7 days
25°C	10 hours	16 hours	5 days

allow a minimum of 48 hours for curing before overcoat Sigma Coltura EP Flooring with solvent based products, such as Sigma Coltura PUR Finish 2K

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

Pot life

10°C	35 min.
15°C	30 min.
20°C	25 min.
25°C	15 min.

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PHYSICAL DATA OF CURED MATERIAL

Compressive strength (DIN 53453)	90.7 MPa
Flexural strength (DIN 53452)	31 MPa
Tensile strength (DIN 53455-3)	28 MPa
E-modulus (DIN 53457)	6500 MPa
Elongation at break	0.6 % (tension)
Elongation at break	0.9 % (bending)
Abrasion resistance (ASTM D4060)	79 mg, 1000 cycles (CS 17 / 1 kg)
Linear co-efficient of expansion	$6.7 \times 10^{-5} \text{ K}^{-1}$
Hardness (DIN 53505)	ca. 81 Shore D

Worldwide availability

Whilst it is always the aim of PPG Protective & Marine 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
Floor coating systems for heavy interior exposure	see system sheet 4234
Floor coating systems for medium exterior exposure	see system sheet 4237

LIMITATION OF LIABILITY

The information in this data sheet is based upon laboratory tests we believe to be accurate and is intended for guidance only. All recommendations or suggestions relating to the use of the Sigma Coatings products made by PPG Protective & Marine Coatings, whether in technical documentation, or in response to a specific enquiry, or otherwise, are based on data which to the best of our knowledge are reliable. The products and information are designed for users having the requisite knowledge and industrial skills and it is the end-user's responsibility to determine the suitability of the product for its intended use.

PPG Protective & Marine Coatings has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. PPG Protective & Marine Coatings does therefore not accept any liability arising from loss, injury or damage resulting from such use or the contents of this data sheet (unless there are written agreements stating otherwise).

The data contained herein are liable to modification as a result of practical experience and continuous product development.

This data sheet replaces and annuls all previous issues and it is therefore the user's responsibility to ensure that this sheet is current prior to using the product.

The English text of this document shall prevail over any translation thereof.

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