SIGMADUR 550

4 pages

September 2005
Revision of April 2005

DESCRIPTION

two component aliphatic acrylic polyurethane finish

PRINCIPAL CHARACTERISTICS

- unlimited recoatable
- excellent resistance to atmospheric exposure conditions
- excellent colour and gloss retention
- non-chalking, non-yellowing
- cures at temperatures down to -5°C
- resistant to splash of mineral and vegetable oils, paraffins, aliphatic petroleum products and mild chemicals
- can be recoated even after long atmospheric exposure
- good application properties

COLOURS AND GLOSS

white and various other colours (see also Marine shade card) - gloss

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	1.3 g/cm³
Volume solids	56 ± 2%
VOC (supplied)	max. 334 g/kg (Directive 1999/13/EC, SED) max. 430 g/l (approx. 3.6 lb/gal)
Recommended dry film thickness	50 - 60 µm depending on system
Theoretical spreading rate	11.2 m²/l for 50 µm *
Touch dry after	1 hour
Overcoating interval	min. 6 hours * max. unlimited
Full cure after	4 days *
	(data for components)
Shelf life (cool and dry place)	at least 24 months
Flash point	base 33°C, hardener 42°C

* see additional data

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- previous coat; (epoxy or polyurethane) dry and free from any contamination and sufficiently roughened if necessary
- during application and curing a substrate temperature down to -5°C is acceptable provided the substrate is dry and free from ice
- substrate temperature should be at least 3°C above dew point
- maximum relative humidity during application and curing is 85%
- premature exposure to early condensation and rain may cause colour and gloss change

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INSTRUCTIONS FOR USE

mixing ratio by volume: base to hardener 88 : 12

- the temperature of the mixed base and hardener should preferably be above 10°C, otherwise extra solvent may be required to obtain application viscosity
- too much solvent results in reduced sag resistance
- thinner should be added after mixing the components

Induction time	none
Pot life	5 hours at 20°C * * see additional data

AIRLESS SPRAY

Recommended thinner	Sigma thinner 21-06
Volume of thinner	3 - 5%, depending on required thickness and application conditions
Nozzle orifice	approx. 0.44 - 0.49 mm (= 0.017 - 0.019 in)
Nozzle pressure	20 MPa (= approx. 200 bar; 2800 p.s.i.)

AIR SPRAY

Recommended thinner	Sigma thinner 21-06
Volume of thinner	3 - 5%, depending on required thickness and application conditions
Nozzle orifice	1 - 1.5 mm
Nozzle pressure	0.3 - 0.4 MPa (= approx. 3 - 4 bar, 43 - 57 p.s.i.)

BRUSH/ROLLER

Recommended thinner	Sigma thinner 21-06
Volume of thinner	0 - 5%

CLEANING SOLVENT

Sigma thinner 90-53

SAFETY PRECAUTIONS

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

this is a solvent based 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

- contains a toxic polyisocyanate curing agent
- avoid at all times inhalation of aerosol spraymist

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ADDITIONAL DATA

Film thickness and spreading rate

theoretical spreading rate m²/l	11.2	9.3
dft in µm	50	60

Overcoating table for SigmaDur products

substrate temperature	-5°C	0°C	10°C	20°C	30°C	40°C
minimum interval	24 hours	16 hours	8 hours	6 hours	5 hours	3 hours
maximum interval	unlimited					

– surface should be dry and free from any contamination

Curing table

substrate temperature	dry to handle	full cure
-5°C	24 hours	15 days
0°C	16 hours	11 days
10°C	8 hours	6 days
20°C	6 hours	4 days
30°C	5 hours	3 days
40°C	3 hours	2 days

– adequate ventilation must be maintained during application and curing (please refer to sheet 1433 and 1434)
– premature exposure to early condensation and rain may cause colour and gloss change

Pot life (at application viscosity)

10°C	7 hours
20°C	5 hours
30°C	3 hours
40°C	2 hours

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.

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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

LIMITATION OF LIABILITY

DS	7537
238761 white	7000001400
238763 white	7000002200

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