New Guard Coatings Group

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SigmaShield 4701

4 pages

February 2014
Revision of January 2014

Description

Glassflake Vinylester Primer

PRINCIPAL CHARACTERISTICS

- High performance primer for new or old steel
- Suitable holding primer for SigmaShield 4801 whew required
- Suitable for service temperature >80°C when overcoated with SigmaShield 4801 dependent on the actual environment

COLOURS AND GLOSS

Slightly amber (translucent) – flat

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	1.06 g/cm³
Volume solids	92% (Nominal Value: Product contains volatile liquid convertible to solids. Volume solids obtained will vary dependent upon polymerisation conditions)
Recommended dry film thickness	Not specified Recommended wet film thickness 55 - 130 µm
Theoretical spreading rate	20 m²/l (979 ft²/gal) for 50 µm wft 10 m²/l (489 ft²/gal) for 100 µm wft
Overcoating interval	Min. 1.5 hours at 20°C
Shelf life (cool and dry place)	Base and catalyst (hardener) 6 months stored at temperatures below 20°C Frequent temperature cycling will shortage storage life

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Steel; blast cleaned to ISO Sa2½, SSSP-SP10.
- To prevent moisture condensation during application, surface temperature must be at least 3°C/5°F above dew point.
- Minimum temperature for a satisfactory cure is 10°C\50°F.
- maximum relative humidity during application and curing is 85 %

INSTRUCTIONS FOR USE

mixing ratio by volume: resin to cure 98: 2

Pot life

approx. 1 hour at 20°C

The pot life will vary substantially with temperature

AIRLESS SPRAY

- AIRLESS PUMP 30:1 or greater, fit leather or PTFE seals and remove fluid filters, 10mm diameter (3/8") nylon lined hoses.
- Typical tip size is 0.45 to 0.75mm with reverse clean and 45° fan pattern.
- The size of tip and fan pattern will vary with the nature of the work.
- Use pressure to suit hose lengths and working conditions (circa 200 bar)

BRUSH/ROLLER

only for small areas

CLEANING SOLVENT

Cleaner: Thinner 50-02

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ADDITIONAL DATA

Overcoating times

substrate temperature	10°C/ 50°F	20°C / 68°F
Dry to recoat minimum interval	3 hours	1.5 hours
Dry to recoat maximum interval	96 hours	72 hours

- The Maximum overcoating times can vary substantially with climatic conditions and such has to be observed.
- Strong UV /Sunlight will substantially reduce the overcoating time.
- Once maximum recoating time has been reached, adhesion values attained by an subsequent coat will reduce dramatically.
- Should this occur overcoating should be treated as repair, with the coating flash blasted to provide a physical key.
- Styrene cannot be used to reactivate the surface of this product and may impair adhesion.
- Take care to avoid contamination before application or subsequent coat.
- Ensure ventilation during cure.

Curing

Drying times

substrate temperature	touch dry
10°C / 50°F	90 min.
20°C / 68°F	50 min.

APPLICATION

- never add any solvent to SigmaShield 4701
- never add catalyst without continuous stirring
- never add more than the recommended amount of catalyst

REFERENCES

Conversion tables	see information sheet 1410
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
Relative humidity - substrate temperature - air temperature	see information sheet 1650
Application and use manual SigmaShield 4800/4801	See information sheet 1726

SAFETY PRECAUTIONS

- Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods.
- The curing agent of Sigmashield 4701 is supplied in small polythene bottles separately from the pigmented resin component.

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- It is a highly reactive, combustible and thermally unstable substance that can undergo self-accelerating decomposition
- It is also a powerful oxidising agent and will react violently with other organic chemicals

- It is thus recommended to keep in original containers, to hold within the predetermined temperature limits, to prevent contact/contamination with other materials and to minimise the quantity at the workplace - only have present enough for the job in hand.
- Please refer to infosheet 1726 and the MSDS of the products for detailed information.

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