SigmaShield 4701

Description
Glassflake Vinylester Primer

PRINCIPAL CHARACTERISTICS
- High performance primer for new or old steel
- Suitable holding primer for SigmaShield 4801 when 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
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**

<table>
<thead>
<tr>
<th>Overcoating times</th>
<th>Substrate temperature</th>
<th>10°C/ 50°F</th>
<th>20°C / 68°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dry to recoat minimum interval</td>
<td>3 hours</td>
<td>1.5 hours</td>
<td></td>
</tr>
<tr>
<td>Dry to recoat maximum interval</td>
<td>96 hours</td>
<td>72 hours</td>
<td></td>
</tr>
</tbody>
</table>

- 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**

<table>
<thead>
<tr>
<th>Drying times</th>
<th>Substrate temperature</th>
<th>Touch dry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>10°C/ 50°F</td>
<td>90 min.</td>
</tr>
<tr>
<td></td>
<td>20°C / 68°F</td>
<td>50 min.</td>
</tr>
</tbody>
</table>

- 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 see information sheet 1431
Explosion hazard - toxic hazard see information sheet 1433
Safe working in confined spaces see information sheet 1434
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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