SIGMACOVER 435 US
(formerly Sigmacover CM Miocoat II)

July 2006
Revision of March 2006

DESCRIPTION
Two component, high build, high solids, micaceous iron oxide pigmented polyamide cured re-coatable epoxy primer.

PRINCIPAL CHARACTERISTICS
- General purpose epoxy primer, build coat or finish for steel and concrete exposed to atmospheric land or marine conditions.
- Excellent durability due to very good sealing properties.
- Can be re-coated with two component and conventional coatings even after long weathering periods.
- Easy application by airless spray, roller and brush.
- Good adhesion on aged epoxy coatings.
- Cure at temperatures down to 14°F (-10°C).
- Tolerant to high humidity (95%) during application and curing.
- Resistant to water and splash of mild chemicals.
- Tough with long term flexibility.

COLORS AND GLOSS
Metallic buff, green and grey – eggshell.

BASIC DATA AT 68°F (20°C)
(data for mixed product)

Mass density
approximately 11.0 lbs/gal (1.3 g/cm³)
Solids content
approximately 65% by volume
VOC (by EPA method 24)
2.7 lbs/gal (324 g/ltr)
Recommended dry film thickness
3 – 6 mils (75 – 150 μm)
Theoretical spreading rate
1,043 ft²/gal at 1 mil (28 m²/litr at 25 μm)
Touch dry after
3 hours
Overcoating interval
minimum 3 hours (see additional data)
maximum unlimited on surfaces free from contamination.
Full cure after
6 days
Temperature resistance
(dry) 390°F (199°C) will discolor above 212°F (100°C)
Shelf life (cool and dry place)
minimum 18 months
Flash point
base: 87°F (31°C)
hardener: 79°F (26°C)

Packaging data
1 gallon mixed kit
mix ratio: 4:1
base: 0.8 gal in 1 gal can
hardener: 0.2 gal in qt can

5 gallon mixed kit
mix ratio: 4:1
base: 4 gal in 5 gal can
hardener: 1 gal in 1 gal can

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RECOMMENDED SUBSTRATE
CONDITIONS AND TEMPERATURES
- Steel; blast cleaned to SSPC-SP10/NACE No.2, blast profile 1.5 – 3 mils (40 – 70μm)
- Previous coats dry and free from any contamination.
- Substrate temperature should be at least 5°F (3°C) above the dew point during application and curing.

INSTRUCTIONS FOR USE
- Mixing ratio by volume: base to hardener 80 : 20.
- Power agitate each component to uniform consistency before combining then again after combining. **DO NOT** vary proportions.
- When mixing the temperature of base and hardener should be at least 59°F (15°C), otherwise extra solvent may be required. Too much solvent results in lower sag resistance and slower cure. Thinner if required should only be added after mixing the components.

Induction time 20 minutes if paint temperature below 50°F (10°C)
None if above 50°F (20°C)

Pot life 5 hours at 68°F (20°C)

Relative humidity 95% maximum

AIRLESS SPRAY
Recommended thinner 91 – 92 (Flash point 68°F (20°C)).
Volume of thinner 0 – 5% depending on required dft
Tip size 0.019 – 0.021 inch (approximately 0.48 – 0.53 mm)
Tip pressure 2100 p.s.i. (approximately 150 atm.)

CONVENTIONAL SPRAY
Recommended thinner 91 – 92 (Flash point 68°F (20°C)).
Volume of thinner 10 – 15%
Tip size 0.059 – 0.117 inch (1.5 – 3.0 mm)
Tip pressure 43 – 57 p.s.i. (approximately 3 – 4 atm.)

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**BRUSH/ROLLER**
Recommended thinner  91 – 92 (Flash point 68°F (20°C)).
Volume of thinner 0 – 5%

**CLEANING SOLVENT**  90-53 (Flash point 86°F (30°C))

*Note:* Special thinners may be required if applied directly on top of zinc silicate primers.

**SAFETY PRECAUTIONS**
This product is offered for sale and use only to PROFESSIONALLY TRAINED INDUSTRIAL PERSONNEL. It is NOT FOR RESIDENTIAL USE. This product contains flammable solvents and/or other hazardous ingredients and must be used with caution. Observe all health and safety precautions as listed on the Material Safety Data Sheet during storage and handling, application, drying and disposal. DO NOT ATTEMPT TO USE THIS PRODUCT WITHOUT CONSULTING THE CURRENT “MATERIAL SAFETY DATA SHEET”. Material Safety Data Sheets are available from the Customer Service Department at SigmaKalon USA (713-355-3333)

**ADDITIONAL DATA**

<table>
<thead>
<tr>
<th>Film thickness and spreading rate</th>
<th>theoretical spreading rate ft²gal</th>
<th>348</th>
<th>261</th>
<th>174</th>
</tr>
</thead>
<tbody>
<tr>
<td>dft in mils</td>
<td>max. dft when brushing: 4 mils (100 μm)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overcoating table for Sigmacover 435 US with self or SigmaCover 456 US.

<table>
<thead>
<tr>
<th>Substrate Temperature (°F/°C)</th>
<th>23°F (-5°C)</th>
<th>41°F (5°C)</th>
<th>50°F (10°C)</th>
<th>68°F (20°C)</th>
<th>86°F (30°C)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Interval</td>
<td>36 hours</td>
<td>10 hours</td>
<td>4 hours</td>
<td>3 hours</td>
<td>2 hours</td>
</tr>
<tr>
<td>Maximum Interval</td>
<td>No limitations, when cleaned from chalking and any contamination.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Overcoating table when overcoated with polyurethane, alkyd and general epoxies.

<table>
<thead>
<tr>
<th>Substrate Temperature (°F/°C)</th>
<th>32°F (0°C)</th>
<th>41°F (5°C)</th>
<th>50°F (10°C)</th>
<th>68°F (20°C)</th>
<th>86°F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Interval</td>
<td>4 days</td>
<td>2 days</td>
<td>1 day</td>
<td>12 hours</td>
<td>8 hours</td>
</tr>
<tr>
<td>Maximum</td>
<td>No limitations, when cleaned from chalking and any contamination.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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Curing table

<table>
<thead>
<tr>
<th>Substrate temperature</th>
<th>Dry to handle</th>
<th>Rain resistant</th>
<th>Full cure</th>
</tr>
</thead>
<tbody>
<tr>
<td>14°F (-10°C)</td>
<td>48 hours</td>
<td></td>
<td>20 days</td>
</tr>
<tr>
<td>23°F (-5°C)</td>
<td>30 hours</td>
<td></td>
<td>14 days</td>
</tr>
<tr>
<td>32°F (0°C)</td>
<td>24 hours</td>
<td></td>
<td>10 days</td>
</tr>
<tr>
<td>50°F (10°C)</td>
<td>12 hours</td>
<td></td>
<td>6 days</td>
</tr>
<tr>
<td>68°F (20°C)</td>
<td>6 hours</td>
<td></td>
<td>4 days</td>
</tr>
<tr>
<td>86°F (30°C)</td>
<td>4 hours</td>
<td></td>
<td>3 days</td>
</tr>
</tbody>
</table>

Adequate ventilation is essential during application and curing. Figures above are for 4 mil dry film thickness. Periods for dry to handle are approximately 50% longer at 6.0 mils (150 µm).

Pot life

<table>
<thead>
<tr>
<th>Temperature</th>
<th>Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>50°F (10°C)</td>
<td>7 hours</td>
</tr>
<tr>
<td>68°F (20°C)</td>
<td>5 hours</td>
</tr>
<tr>
<td>86°F (30°C)</td>
<td>3 hours</td>
</tr>
<tr>
<td>104°F (40°C)</td>
<td>1 hours</td>
</tr>
</tbody>
</table>

Worldwide availability

While it is the aim of Sigma Coatings to supply the same product on a worldwide basis, slight local modifications can be necessary to comply with legislation or special circumstances. In such situations an alternative product data sheet is published.

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 and toxic hazard: see information sheet 1431
- Safe working in confined spaces: see information sheet 1433
- Directives for ventilation practice: see information sheet 1434

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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.