# SIGMAGLIDE FOULING RELEASE COATING SYSTEM 3127

a four page issue

January 2010
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## GENERAL DESCRIPTION

The SigmaGlide coating system is a biocide free, silicone elastomeric, low surface energy coating to protect vessels and other immersed substrates from fouling. The SigmaGlide coating system is high gloss and colour stable.

Once applied, the SigmaGlide system forms a smooth surface to which algal and macro fouling have difficulty adhering. This fouling may settle, but friction due to water movement will cause the fouling to detach.

This fouling release mechanism does not rely on biocidal activity and therefore the SigmaGlide system is environmentally friendly and not subject to special environmental legislation.

The very smooth surface aids the fuel performance of most vessels and furthermore, because the silicone based SigmaGlide system is highly durable, extended service life is possible.

In order to get optimal benefits from the SigmaGlide system proper application under supervision of a PPG Protective & Marine Coatings Field Technical Services Representative experienced with application of fouling release systems is essential.

The specified minimum dry film thickness for both SigmaGlide 790 (Tiecoat) and SigmaGlide 890 (Finish) is 150 µm. The SigmaGlide 990 is specified with a minimum dry film thickness of 180 µm. It is important that this minimum dry film thickness is applied in order to ensure optimal performance of the system.

The SigmaGlide system can only be used over freshly applied epoxy coating. In order to make sure that under all application conditions an optimal coating system is obtained, only a few anticorrosive products are recommended as substrates for the SigmaGlide systems. These recommended anticorrosive products are given in the specifications below.

In order to have optimal benefits from the smooth surface and the long durability of the SigmaGlide system it is recommended to blast the steel surface to a minimum of ISO-Sa2½ with a blasting profile of 40-70 µm.

For recommended application instructions and repair procedure – see working procedure –

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## SPECIFICATIONS FOR IN SITU BLASTED STEEL

| | | |
|---|---|---|
| **SPECIFICATION 1** | Fouling Release system with multipurpose epoxy anticorrosive coating for Underwater and Boottop. This coating system is recommended for substrate temperatures between 10 and 20°C. | |
| pretreatment | steel; blast cleaned to a minimum of ISO-Sa2½,<br>blasting profile 40-70 µm | |
| paint system | SigmaPrime 200 yellow/green<br>SigmaShield 610 redbrown<br>SigmaGlide 790 grey<br>SigmaGlide 990 dark red | 150 µm<br>150 µm<br>150 µm<br>180 µm |
| Notes | - SigmaGlide 990 dark red can be replaced by SigmaGlide 890 redbrown<br>- for low VOC system SigmaPrime 200 can be replaced by SigmaShield 220 in a dft of 125 µm | |

| | | |
|---|---|---|
| **SPECIFICATION 2** | Fouling Release system with multipurpose epoxy anticorrosive coating for Underwater and Boottop. This coating system is recommended for substrate temperatures above 20°C | |
| pretreatment | steel; blast cleaned to a minimum of ISO-Sa2½,<br>blasting profile 40-70 µm | |
| paint system | SigmaPrime 200 yellow/green<br>SigmaShield 620 redbrown<br>SigmaGlide 790 grey<br>SigmaGlide 990 dark red | 150 µm<br>150 µm<br>150 µm<br>180 µm |
| Notes | - SigmaGlide 990 dark red can be replaced by SigmaGlide 890 redbrown<br>- for low VOC system SigmaPrime 200 can be replaced by SigmaShield 220 in a dft of 125 µm | |

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## DATA FOR OVERCOATING

– surface should be dry and free from any contamination
– relative humidity should be above 40%

***Overcoating table for SigmaShield 610 for dft up to 150 µm***

With SigmaGlide 790

| substrate temperature | 10°C | 20°C |
|---|---|---|
| minimum interval | 24 hours | 12 hours |
| maximum interval | 7 days | 5 days |

***Overcoating table for SigmaShield 620 for dft up to 150 µm***

With SigmaGlide 790

| substrate temperature | 20°C | 30°C | 40°C |
|---|---|---|---|
| minimum interval | 12 hours | 4 hours | 4 hours |
| maximum interval | 5 days | 3 days | 2 days |

* at temperatures between 10°C and 20°C SigmaShield 610 should be specified;
at temperatures above 20°C SigmaShield 620 should be applied

***Overcoating table for SigmaGlide 790 for dft up to 150 µm***

With SigmaGlide 790

| substrate temperature | 10°C | 20°C | 30°C | 40°C |
|---|---|---|---|---|
| minimum interval | 30 min. | 15 min. | 10 min. | 10 min. |
| maximum interval | 14 days | 5 days | 3 days | 2 days |

***Overcoating table for SigmaGlide 790 for dft up to 150 µm***

With SigmaGlide 990 and 890

| substrate temperature | 10°C | 20°C | 30°C | 40°C |
|---|---|---|---|---|
| minimum interval | 24 hours | 12 hours | 10 hours | 8 hours |
| maximum interval | 14 days | 5 days | 3 days | 2 days |

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***Overcoating table for SigmaGlide 990 and 890***

With SigmaGlide 990 and 890

| substrate temperature | 10°C | 20°C | 30°C | 40°C |
|---|---|---|---|---|
| minimum interval | 3 hours | 2 hours | 1 hour | 1 hour |
| refloating | 8 hours | 8 hours | 8 hours | 8 hours |

## REFERENCES

| | |
|---|---|
| SigmaPrime 200 | see product data sheet 7416 |
| SigmaShield 220 | see product data sheet 7926 |
| SigmaShield 610 | see product data sheet 7978 |
| SigmaShield 620 | see product data sheet 7948 |
| SigmaGlide 790 | see product data sheet 7386 |
| SigmaGlide 890 | see product data sheet 7399 |
| SigmaGlide 990 | see product data sheet 7397 |
| Explanation to product datasheets | see information sheet 1411 |
| Safety indications | see information sheet 1430 |

PPG Protective & Marine Coatings' General working procedure for application of SigmaGlide