

SIGMA ALPHAGEN™ 230

DESCRIPTION

Low friction linear polishing antifouling based on hydrolysable polymer composition for deep sea going vessels

PRINCIPAL CHARACTERISTICS

- TBT-free self-polishing antifouling with good weathering properties for atmospheric resistance during vessel construction and in-service
- Designed as the antifouling system suitable for high- and medium-activity vessels engaged on deep-sea trades (tankers, bulkers, general cargo, container ships, etc.)
- Controlled polishing rate to give effective protection in accordance with the specified dry film thickness
- Controls settlement of shell and weed fouling for prolonged periods, depending on sailing pattern and routes
- Complies with IMO Antifouling Systems Convention

COLOR AND GLOSS LEVEL

- Redbrown, brown
- Flat

BASIC DATA AT 20°C (68°F)

| Data for product | |
|--------------------------------|--|
| Number of components | One |
| Mass density | 1.8 kg/l (15.0 lb/US gal) |
| Volume solids | 56 ± 2% |
| VOC (Supplied) | Directive 2010/75/EU, SED: max. 239.0 g/kg UK PG 6/23(92) Appendix 3: max. 425.0 g/l (approx. 3.5 lb/US gal) China GB 38469-2019 (tested) 416.0 g/l (approx. 3.5 lb/gal) |
| Recommended dry film thickness | 75 - 150 µm (3.0 - 6.0 mils) depending on system |
| Theoretical spreading rate | 3.7 m ² /l for 150 µm (150 ft ² /US gal for 6.0 mils) |
| Dry to touch | 1 hour |
| Overcoating Interval | Minimum: 6 hours |
| Refloating time | Minimum: 8 hours |
| Shelf life | At least 18 months when stored cool and dry |

Notes:

- See ADDITIONAL DATA - Spreading rate and film thickness
- See ADDITIONAL DATA - Overcoating intervals



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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Previous coat must be sound, dry and free from any contamination
- Suitable high performance anticorrosive (epoxy)
- For the epoxy anticorrosive system, SIGMACOVER 525 or SIGMACOVER 555 should be used as a tiecoat

Substrate temperature and application conditions

- Substrate temperature during application should be at least 3°C (5°F) above dew point

INSTRUCTIONS FOR USE

- The paint should be stirred well before use, preferably by means of a mechanical mixer, to ensure homogeneity

Airless spray

Recommended thinner

THINNER 21-06

Volume of thinner

0 - 3%, depending on required thickness and application conditions

Nozzle orifice

Approx. 0.53 - 0.69 mm (0.021 - 0.027 in)

Nozzle pressure

12.0 - 15.0 MPa (approx. 120 - 150 bar; 1741 - 2176 p.s.i.)

Brush/roller

- Only for touch-up and repair

Recommended thinner

THINNER 21-06

Volume of thinner

0 - 3%

Cleaning solvent

THINNER 21-06



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ADDITIONAL DATA

| Spreading rate and film thickness | |
|-----------------------------------|---|
| DFT | Theoretical spreading rate |
| 75 µm (3.0 mils) | 7.5 m ² /l (299 ft ² /US gal) |
| 100 µm (4.0 mils) | 5.6 m ² /l (225 ft ² /US gal) |
| 150 µm (6.0 mils) | 3.7 m ² /l (150 ft ² /US gal) |

| Overcoating interval for DFT up to 150 µm (6.0 mils) | | | | | |
|--|----------------------|------------|-------------|-------------|-------------|
| Overcoating with... | Interval | 5°C (41°F) | 10°C (50°F) | 20°C (68°F) | 30°C (86°F) |
| itself | Minimum | 12 hours | 10 hours | 6 hours | 4 hours |
| | Refloating - Minimum | 24 hours | 12 hours | 8 hours | 6 hours |

Notes:

- The above data are a fair indication for normal application conditions
- Longer drying times may be necessary at higher DFT and under unfavorable atmospheric conditions
- For systems with more than two layers of antifouling minimum drying time before overcoating and minimum time before refloating should be increased
- In exceptional cases SIGMA ALPHAGEN 230 may be applied at lower substrate temperatures (down to -15°C (5°F)) provided that the surface is free from ice and other contamination. In such cases special care must be taken to avoid thick film application as this may lead to checking/crazing or solvent entrapment. It should be clear that application at lower temperatures will require additional thinning to obtain application viscosity, however this will affect the sag resistance of the applied coating and can induce solvent retention. Optimal curing and designed product properties will only be achieved when minimum required substrate temperature is reached.

SAFETY PRECAUTIONS

- For paint and recommended thinners see INFORMATION SHEETS 1430, 1431 and relevant Material Safety Data Sheets
- This is a solvent-borne paint and care should be taken to avoid inhalation of spray mist or vapor, as well as contact between the wet paint and exposed skin or eyes

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective and Marine Coatings to supply the same product on a worldwide basis. However, 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.

REFERENCES

| | | |
|--|-------------------|------|
| • EXPLANATION TO PRODUCT DATA SHEETS | INFORMATION SHEET | 1411 |
| • SAFETY INDICATIONS | INFORMATION SHEET | 1430 |
| • SAFETY IN CONFINED SPACES AND HEALTH SAFETY, EXPLOSION HAZARD – TOXIC HAZARD | INFORMATION SHEET | 1431 |



SIGMA ALPHAGEN™ 230

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Depending on specific country of application the following versions are available:

| Article code | Color | Reference |
|--------------|----------|------------|
| 332341 | brown | 2000002200 |
| 332342 | redbrown | 2008002200 |

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