SIGMA ALPHAGEN™ 240

DESCRIPTION

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

PRINCIPAL CHARACTERISTICS

- Medium polishing rate-, 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 mixed product	
Number of components	One
Mass density	1.7 kg/l (14.2 lb/US gal)
Volume solids	58 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 207.0 g/kg UK PG 6/23(92) Appendix 3: max. 414.0 g/l (approx. 3.5 lb/US gal)
Recommended dry film thickness	75 - 175 µm (3.0 - 7.0 mils) depending on system
Theoretical spreading rate	3.9 m^2/l for 150 µm (155 ft^2/US gal for 6.0 mils)
Dry to touch	1 hour
Overcoating Interval	Minimum: 6 hours
Refloating time	12 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)	7.7 m^2/l (310 ft^2/US gal)
100 µm (4.0 mils)	5.8 m^2/l (233 ft^2/US gal)
150 µm (6.0 mils)	3.9 m^2/l (155 ft^2/US gal)
175 µm (7.0 mils)	3.3 m^2/l (133 ft^2/US gal)

Overcoating interval for DFT up to 175 µm (7.0 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	18 hours	12 hours	9 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

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

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WARRANTY

PPG warrants (i) its title to the product, (ii) that the quality of the product conforms to PPG's specifications for such product in effect at the time of manufacture and (iii) that the product shall be delivered free of the rightful claim of any third person for infringement of any U.S. patent covering the product. THESE ARE THE ONLY WARRANTIES THAT PPG MAKES AND ALL OTHER EXPRESS OR IMPLIED WARRANTIES, UNDER STATUTE OR ARISING OTHERWISE IN LAW, FROM A COURSE OF DEALING OR USAGE OF TRADE, INCLUDING WITHOUT LIMITATION, ANY OTHER WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE OR USE, ARE DISCLAIMED BY PPG. Any claim under this warranty must be made by Buyer to PPG in writing within five (5) days of Buyer's discovery of the claimed defect, but in no event later than the expiration of the applicable shelf life of the product, or one year from the date of the delivery of the product to the Buyer, whichever is earlier. Buyer's failure to notify PPG of such non-conformance as required herein shall bar Buyer from recovery under this warranty.

LIMITATIONS OF LIABILITY

IN NO EVENT WILL PPG BE LIABLE UNDER ANY THEORY OF RECOVERY (WHETHER BASED ON NEGLIGENCE OF ANY KIND, STRICT LIABILITY OR TORT) FOR ANY INDIRECT, SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES IN ANY WAY RELATED TO, ARISING FROM, OR RESULTING FROM ANY USE MADE OF THE PRODUCT. The information in this sheet is intended for guidance only and is based upon laboratory tests that PPG believes to be reliable. PPG may modify the information contained herein at any time as a result of practical experience and continuous product development. All recommendations or suggestions relating to the use of the PPG product, whether in technical documentation, or in response to a specific inquiry, or otherwise, are based on data, which to the best of PPG's knowledge, is reliable. The product and related information is designed for users having the requisite knowledge and industrial skills in the industry and it is the end-user's responsibility to determine the suitability of the product for its own particular use and it shall be deemed that Buyer has done so, as its sole discretion and risk. PPG has no control over either the quality or condition of the substrate, or the many factors affecting the use and application of the product. Therefore, PPG does not accept any liability arising from any loss, injury or damage resulting from such use or the contents of this information (unless there are written agreements stating otherwise). Variations in the application environment, changes in procedures of use, or extrapolation of data may cause unsatisfactory results. This sheet supersedes all previous versions and it is the Buyer's responsibility to ensure that this information is current prior to using the product. Current sheets for all PPG Protective & Marine Coatings Products are maintained at www.ppgpmc.com. The English text of this sheet shall prevail over any translation thereof.

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

Article code	Color	Reference
249277	brown	2000002200
249273	redbrown	2008002200
328228	brown	2000002150
328229	redbrown	2008002150