



New Guard Coatings Group

A global reputation to protect.

The information herewith is given with the best of New Guard Coatings Group knowledge.

Rights are reserved to change and update the data without notice.

This information is not exhaustive and it is the user's responsibility to ensure that this data sheet is the most current by contacting their local New Guard Coatings Group branch prior to using the coating/product.

www.newguardcoatings.com

NORTH • SOUTH EAST • MIDLANDS • NORTH WEST • HULL • SCOTLAND

SIGMA ECOFLEET® 290

DESCRIPTION

linear polishing antifouling, particularly suitable for deep sea going vessels

PRINCIPAL CHARACTERISTICS

- TBT-free self-polishing antifouling for new-building and maintenance
- Controls settlement of shell and weed fouling for prolonged periods, depending on sailing pattern and routes
- Controlled polishing rate to give effective protection in accordance with the specified film thickness and smoothing of the surface
- Complies with IMO Antifouling Systems Convention

COLOR AND GLOSS LEVEL

- Redbrown, brown, black
- Flat

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	One
Mass density	1.8 kg/l (15.0 lb/US gal)
Volume solids	55 ± 2%
VOC (Supplied)	Directive 1999/13/EC, SED: max. 233.0 g/kg max. 420.0 g/l (approx. 3.5 lb/US gal)
Recommended dry film thickness	75 - 160 µm (3.0 - 6.3 mils) depending on system
Theoretical spreading rate	7.3 m ² /l for 75 µm (294 ft ² /US gal for 3.0 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

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Substrate conditions

- Suitable high performance anticorrosive tiecoats
- Previous coat must be sound, dry and free from any contamination



SIGMA ECOFLEET® 290

Substrate temperature and application conditions

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

INSTRUCTIONS FOR USE

- Stir well before use
- The temperature of the paint should preferably be above 15°C (59°F), otherwise extra thinner may be required to obtain application viscosity
- Adding too much thinner results in reduced sag resistance

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
- Multicoat roller or brush application is not recommended. Maximum DFT achievable by brush or roller is 50 µm (2.0 mils)

Recommended thinner

THINNER 21-06

Volume of thinner

0 - 3%

Cleaning solvent

THINNER 21-06

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
75 µm (3.0 mils)	7.3 m ² /l (294 ft ² /US gal)
100 µm (4.0 mils)	5.5 m ² /l (221 ft ² /US gal)
160 µm (6.3 mils)	3.4 m ² /l (140 ft ² /US gal)

SIGMA ECOFLEET® 290

Overcoating interval for DFT up to 160 µm (6.3 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

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 |

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.



SIGMA ECOFLEET® 290

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
218998	A redbrown	2008002200
269704	A brown	2000002200
249481	S redbrown	2008002200
249482	S brown	2000002200
331470	S redbrown	2008002150
331471	S brown	2000002150

The PPG logo, and all other PPG marks are property of the PPG group of companies. All other third-party marks are property of their respective owners.

