PPG LINEGUARD™ EG

Formerly known as PPG ENVIROGREEN® 84

DESCRIPTION

Two-component, 100% solids coating, for e-coat carriers

PRINCIPAL CHARACTERISTICS

- Direct to steel application
- Glossy and smooth appearance
- Easy clean
- High chemical resistance

COLOR AND GLOSS LEVEL

- Green
- Gloss

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.3 kg/l (10.8 lb/US gal)
Volume solids	100%
VOC (Supplied)	EPA Method 24: 0.6 lb/US gal (73.1 g/l)
Recommended dry film thickness	250 - 300 µm (10.0 - 12.0 mils) per coat
Theoretical spreading rate	3.3 m^2/l for 300 µm (134 ft^2/US gal for 12.0 mils)
Dry to touch	6 hours
Overcoating Interval	Minimum: 24 hours Maximum: 2 months
Full cure after	5 days
Shelf life	Base: at least 24 months when stored cool and dry Hardener: at least 24 months when stored cool and dry

Notes:
- Curing: can be forced cured. Please see table in ADDITIONAL DATA
- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Carbon steel

- Steel; blast cleaned to a minimum of SSPC-SP10 or ISO-SA2½ , blasting profile 50 – 125 µm (5.0 mils) (2.0 – 5.0 mils)
- Uncoated steel must be dry and free from salts and any contamination

PPG LINEGUARD™ EG

Formerly known as PPG ENVIROGREEN® 84

Substrate temperature and application conditions

- Substrate temperature during application and curing should be between 5°C (41°F) and 50°C (122°F)
- Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
- Ambient temperature during application and curing should be between 5°C (41°F) and 50°C (122°F)

SYSTEM SPECIFICATION

- LINEGUARD EG: 2 coats of 250µm to 300µm (10 to 12 mils) per coat

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to hardener 80:20 (4:1)

- The temperature of the mixed base and hardener should preferably be at least 20°C (68°F)
- At lower temperature, the viscosity will be too high for spray application
- No thinner should be added
- Contact your product manufacturer for specific use guidance

Induction time

None

Pot life

1 hour at 20°C (68°F)

Note: See ADDITIONAL DATA – Pot life

Airless spray

- Use heavy-duty, single-feed, airless spray equipment, preferably 60:1 pump ratio and suitable high-pressure hoses/in-line heating or insulated hoses may be necessary to avoid cooling down of paint in hoses at low air temperature
- Length of hoses should be as short as possible

Recommended thinner

No thinner should be added

Nozzle orifice

Approx. 0.53 mm (0.021 in)

Nozzle pressure

At 20°C (68°F) paint temperature min. 28.0 MPa (approx. 280 bar; 4061 p.s.i.). At 30°C (86°F) min. 22.0 MPa (approx. 220 bar; 3191 p.s.i.)

PPG LINEGUARD™ EG

Formerly known as PPG ENVIROGREEN® 84

Brush/roller

- Brush: for stripe coating and spot repair only

Recommended thinner

No thinner should be added

Cleaning solvent

PPG Thinner 90-53 or PPG Thinner 90-83

Notes:

- Paint inside the spraying equipment must be removed before the pot life has been expired
- All application equipment must be cleaned immediately after use

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
300 µm (12.0 mils)	3.3 m^2/l (134 ft^2/US gal)
600 µm (24.0 mils)	1.7 m^2/l (67 ft^2/US gal)

Note: Maximum DFT when brushing: 150 µm (6.0 mils)

Measuring wet film thickness

- A difference is often obtained between the measured apparent WFT and the real applied WFT. This is due to the thixotropy and the surface tension of the paint, which retards the release of air, trapped in the paint film for some time
- Recommendation is to apply a WFT, which is equal to the specified DFT plus 60 µm (2.4 mils)

Measuring dry film thickness

- Because of low initial hardness the DFT cannot be measured within some days, due to the penetration of the measuring device into the soft paint film
- The DFT should be measured using a calibration foil of known thickness placed in between the coating and the measuring device

Overcoating interval for DFT up to 300 µm (12.0 mils)					
Overcoating with...	**Interval**	**5°C (41°F)**	**10°C (50°F)**	**20°C (68°F)**	**30°C (86°F)**
itself	Minimum	3.5 days	36 hours	24 hours	16 hours
	Maximum	3 months	3 months	2 months	1 month

Note: Surface should be dry and free from any contamination

PPG LINEGUARD™ EG

Formerly known as PPG ENVIROGREEN® 84

Curing time for DFT up to 300 µm (12.0 mils)		
Substrate temperature	**Dry to handle**	**Full cure**
5°C (41°F)	60 hours	14 days
10°C (50°F)	30 hours	7 days
20°C (68°F)	16 hours	5 days
30°C (86°F)	10 hours	3 days

Curing time for force curing		
Substrate temperature	**Dry to handle**	**Full cure**
20°C (68°F)	16 hours	5 days
30°C (86°F)	10 hours	3 days
40°C (104°F)	6 hours	36 hours
50°C (122°F)	3 hours	18 hours
60°C (140°F)	2 hours	10 hours
65°C (149°F)	1.5 hours	7 hours
75°C (167°F)	1.5 hours	4 hours

Notes:

- Allow LINEGUARD to reach at least a touch dry state under continuous ventilation (See INFORMATION SHEET 1434) prior to force curing to mitigate sagging
- When force curing, increase temperature at a rate no greater than 1°C (2°F) per minute until the target temperature is reached; LINEGUARD may be force cured to a maximum temperature of 77°C (170°F)
- Lower temperatures and poor ventilation will result in extended cure time. Insufficient ventilation and high relative humidity levels during cure may cause the lining to blush, which must be removed by water washing prior to service or touch up
- Although the paint is solvent free adequate ventilation must be maintained during application and curing (please refer to INFORMATION SHEETS 1433 and 1434)

Pot life (at application viscosity)	
Mixed product temperature	**Pot life**
10°C (50°F)	2 hours
20°C (68°F)	1 hour
30°C (86°F)	45 minutes

Note: Due to exothermic reaction, temperature during and after mixing may increase

SAFETY PRECAUTIONS

- See Safety Data Sheet and product label for complete safety and precaution requirements
- Although this is a solvent-free paint, care should be taken to avoid inhalation of spray mist, as well as contact between the wet paint and exposed skin or eyes
- Ventilation should be provided in confined spaces to maintain good visibility
- If workers are exposed to concentrations above the exposure limit, they must use appropriate personal protective equipment (PPE).

PPG LINEGUARD™ EG

Formerly known as PPG ENVIROGREEN® 84

REFERENCES

• CONVERSION TABLES	INFORMATION SHEET	1410
• EXPLANATION TO PRODUCT DATA SHEETS	INFORMATION SHEET	1411
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434

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
420769	white	EGRN84-3/05
420782	green	EGRN84-5B/01