



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

NOVAGUARD™ 4801

DESCRIPTION

Two-component, glass flake reinforced novolac vinyl ester

PRINCIPAL CHARACTERISTICS

- High performance coating for new or old steel
- Excellent resistance to chemicals at high temperatures
- Excellent resistance to (in)organic acids
- Good resistance to a wide range of solvents
- Suitable for high temperature immersion
- Suitable for application on concrete on top of Novaguard 4701

COLOR AND GLOSS LEVEL

- White
- Flat

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.2 kg/l (10.0 lb/US gal)
Volume solids	99%
Recommended dry film thickness	500 - 1500 µm (20.0 - 60.0 mils)
Theoretical spreading rate	1.6 m ² /l for 500 µm (64 ft ² /US gal for 20.0 mils) 0.5 m ² /l for 1500 µm (21 ft ² /US gal for 60.0 mils)
Full cure after	4 days
Shelf life	Base: at least 6 months when stored cool and dry Catalyst: at least 6 months when stored cool and dry

Notes:

- A film shrinkage up to 20% can be expected, due to the specific reaction mechanism and depending on conditions
- Frequent temperature cycles may shorten the shelf life
- See ADDITIONAL DATA - Spreading rate and film thickness
- See ADDITIONAL DATA - Overcoating intervals
- See ADDITIONAL DATA - Curing time

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Steel

- Steel; blast cleaned to ISO Sa 2½ or SSPC-SP-10, blasting profile 50 – 75 µm (2.0 – 3.0 mils)



NOVAGUARD™ 4801

Coated concrete

- Suitable primer must be dry and free from any contamination
-

Substrate temperature

- Substrate temperature during application and curing should be above 10°C (50°F)
 - Substrate temperature during application and curing should be at least 3°C (5°F) above dew point
-

INSTRUCTIONS FOR USE

Mixing ratio by volume: base to catalyst 98:2

- The reaction between the base component and catalyst is highly exothermic, deviation from the recommended mixing ratio should not be undertaken.
 - Pre-mix base component with a pneumatic air mixer at moderate speeds to homogenize the container
 - Add the catalyst while stirring the base
 - Mix thoroughly before application
-

Pot life

50 minutes at 20°C (68°F)

Note: The pot life will vary substantially with temperature

Application

- Never add any solvent
 - Never add the catalyst without continuous stirring
 - Never add more than the recommended amount of catalyst
-

Airless spray

- AIRLESS PUMP 45:1 or greater, fit leather or PTFE seals and remove fluid filters, 10 mm diameter (0.375 in) nylon-lined hoses, large-bore gun with 0.6 to 1.5 mm (0.024 to 0.059 in) reverse clean tip
 - Typical tip size is 0.75 – 0.85 mm (0.030 – 0.033 in) with reverse clean and 45° fan
 - The size of tip and fan pattern will vary with the nature of the work
 - Pressure to suit hose lengths and working conditions (circa 200 bar)
-

Cleaning solvent

THINNER 50-02



NOVAGUARD™ 4801

ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
500 µm (20.0 mils)	1.6 m ² /l (64 ft ² /US gal)
750 µm (30.0 mils)	1.1 m ² /l (43 ft ² /US gal)
1500 µm (60.0 mils)	0.5 m ² /l (21 ft ² /US gal)

Overcoating interval for DFT up to 1000 µm (40.0 mils)					
Overcoating with...	Interval	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
itself	Minimum	5 hours	2.5 hours	1 hour	less than 1 hour
	Maximum	4 days	48 hours	36 hours	18 hours

Notes:

- Surface should be dry and free from any contamination before recoating
- The maximum recoating time will reduce significantly at high temperature or in strong sunlight
- Once the maximum recoating time has been reached, adhesion values attained by an subsequent coat will reduce dramatically
- Styrene cannot be used to reactivate the surface of this product and may impair adhesion

Curing time for DFT up to 1500 µm (60.0 mils)		
Substrate temperature	Dry to handle	Full cure
10°C (50°F)	24 hours	5 days
20°C (68°F)	18 hours	3 days
30°C (86°F)	12 hours	48 hours
40°C (104°F)	6 hours	24 hours

Note: Adequate ventilation must be maintained during application and curing

SAFETY PRECAUTIONS

- Since improper use and handling can be hazardous to health and cause of fire or explosion, safety precautions included with Product Data/Application Instruction and Material Safety Data Sheet must be observed during all storage, handling, use and drying periods
- 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
- The catalyst of this product is supplied in small polythene bottles separately from the pigmented base component
- The catalyst of this product is an organic peroxide which is a highly reactive, combustible and thermally unstable substance that can undergo self-accelerating decomposition
- It is also a powerful oxidizing agent and will react violently with other organic chemicals
- It is thus recommended to keep in original containers, to hold within the predetermined temperature limits, to prevent contact/contamination with other materials, and to minimize the quantity at the workplace – only have enough present for the job in hand
- The waste of this product should be treated with special care; please contact your PPG representative for more details

NOVAGUARD™ 4801

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

• CONVERSION TABLES	INFORMATION SHEET	1410
• 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
• SAFE WORKING IN CONFINED SPACES	INFORMATION SHEET	1433

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.ppgmc.com. The English text of this sheet shall prevail over any translation thereof.

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.

