

# 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 <sup>2</sup> /l for 500 µm (64 ft <sup>2</sup> /US gal for 20.0 mils) 0.5 m <sup>2</sup> /l for 1500 µm (21 ft <sup>2</sup> /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)



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## **Coated concrete**

- Suitable primer must be dry and free from any contamination
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## **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
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## **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
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### **Pot life**

50 minutes at 20°C (68°F)

Note: The pot life will vary substantially with temperature

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### **Application**

- Never add any solvent
  - Never add the catalyst without continuous stirring
  - Never add more than the recommended amount of catalyst
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### **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)
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### **Cleaning solvent**

THINNER 50-02

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## ADDITIONAL DATA

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

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## 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

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