



New Guard Coatings Group

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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.

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NOVAGUARD™ 4701

DESCRIPTION

Glass flake vinylester primer

PRINCIPAL CHARACTERISTICS

- Suitable for application to steel or concrete
- Suitable holding primer for NOVAGUARD 4801
- Suitable for service temperature >80°C (176°F) when overcoated with NOVAGUARD 4801 dependent on the actual environment

COLOR AND GLOSS LEVEL

- Slightly amber (translucent)
- Flat

BASIC DATA AT 20°C (68°F)

Data for mixed product	
Number of components	Two
Mass density	1.1 kg/l (8.8 lb/US gal)
Volume solids	91%
Recommended dry film thickness	45 - 120 µm (1.8 - 4.7 mils)
Theoretical spreading rate	18.2 m ² /l for 50 µm (730 ft ² /US gal for 2.0 mils) 9.1 m ² /l for 100 µm (365 ft ² /US gal for 4.0 mils)
Overcoating Interval	1.5 hours
Shelf life	Base: at least 6 months when stored cool and dry Catalyst: at least 6 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Spreading rate and film thickness
- See ADDITIONAL DATA – Overcoating intervals
- See ADDITIONAL DATA – Curing time
- Nominal value: Product contains volatile liquid convertible to solids. Volume solids obtained will vary dependent upon polymerization conditions

RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

Steel

- Steel; blast cleaned to ISO Sa2½, SSPC-SP10
- This primer should not be used where there is a risk of contaminant above pH 9



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Concrete

- Dried for at least 28 days in good ventilation conditions
 - Moisture content should not exceed 4.5%
 - Concrete must be sound, dry, free from laitance and any contamination
 - Rough surface; eventually abraded by power tool or diamond abrading tool
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Substrate temperature and application conditions

- 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
 - Relative humidity during application and curing should not exceed 85%
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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

1 hour 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
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Airless spray

- Airless pump 30:1 or greater, fit leather or FPTE seals and remove fluid filters, 10 mm diameter (0.375 in) nylon-lined hoses
 - Typical tip size is 0.46 – 0.74 mm (0.018 – 0.029 in) with reverse clean and 45° fan pattern
 - The size of tip and fan pattern will vary with the nature of the work
 - Use pressure to suit hose lengths and working conditions (circa 200 bar)
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Brush/roller

- For small areas only (touch up and repair)

Note: Surface should be flash blasted to provide physical key

Cleaning solvent

THINNER 50-02



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ADDITIONAL DATA

Spreading rate and film thickness	
DFT	Theoretical spreading rate
50 µm (2.0 mils)	18.2 m ² /l (730 ft ² /US gal)
100 µm (4.0 mils)	9.1 m ² /l (365 ft ² /US gal)

Overcoating interval for DFT up to 120 µm (4.7 mils)					
Overcoating with...	Interval	10°C (50°F)	20°C (68°F)	30°C (86°F)	40°C (104°F)
NOVAGUARD 4801	Minimum	3 hours	1.5 hours	1 hour	less than 1 hour
	Maximum	4 days	3 days	36 hours	24 hours

Notes:

- 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
- When this occurs, overcoating should be treated as repair with the coating flash blasted to provide a physical key
- Styrene cannot be used to reactivate the surface of this product and may impair adhesion
- Take care to avoid contamination before application or subsequent coat

Curing time for DFT up to 120 µm (4.7 mils)	
Substrate temperature	Dry to handle
10°C (50°F)	12 hours
20°C (68°F)	8 hours
30°C (86°F)	6 hours
40°C (104°F)	3 hours

Notes:

- Full cure times are irrelevant for this product as it is purely a holding primer
- 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
- The catalyst of this product is supplied in small polythene bottles separately from the pigmented base component
- It 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
• DIRECTIVES FOR VENTILATION PRACTICE	INFORMATION SHEET	1434
• RELATIVE HUMIDITY – SUBSTRATE TEMPERATURE – AIR TEMPERATURE	INFORMATION SHEET	1650

WARRANTY

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