PPG NOVAGUARD® 6800 Lining System

Formerly known as Milamar 6800 LS

DESCRIPTION

Three-step monolithic novolac vinyl ester lining system designed for trowel application (minimum application thickness: 1/8")

PRINCIPAL CHARACTERISTICS

- Rapid cure and return-to-service
- Excellent adhesion to concrete and steel
- Excellent wear and chemical resistance
- Can be applied to horizontal, vertical and overhead surfaces without sagging
- Dry heat resistance to 300°F (149°C)
- USDA acceptable
- TYPICAL USES:
- Suitable for tank lining
- Chemical processing facilities
- Suitable for floors and vertical surfaces

COLOR AND GLOSS LEVEL

- Grey
- Low sheen

BASIC DATA AT 75°F (24°C)

Data for mixed product	
Number of components	Three
Volume solids	90%
VOC (Supplied)	max. 20.0 g/l (approx. 0.2 lb/US gal)
Theoretical spreading rate	30 ft^2/US gal for 10.0 mils (0.7 m^2/l for 250 µm) 10 ft^2/US gal for 125.0 mils (0.2 m^2/l for 3125 µm) 30 ft^2/US gal for 10.0 mils (0.7 m^2/l for 250 µm)
Dry to touch	3 hours
Full cure after	96 hours
Shelf life	Part A: at least 3 months when stored cool and dry Part B: at least 3 months when stored cool and dry

Notes:

- See ADDITIONAL DATA – Spreading rate and film thickness
- Material should be stored in dry conditions, out of direct sunlight, and in unopened original factory containers

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RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Substrate temperature during application should be between 65°F (18°C) and 85°F (29°C)
- Do not apply if substrate temperature is below 60°F (16°C)

Concrete

- New concrete must cure a minimum of 28 days prior to application
- Apply only to properly prepared, clean, dry and sound concrete substrates that are free of all coatings, sealers, curing compounds, oils, greases or any other contaminants. Neutralize or remove these and any laitance or weak surface layers such as broom finished concrete surfaces
- Prepare in accordance with SSPC-SP13 guidelines to achieve a surface profile equivalent to CSP 3 to CSP 5 in accordance with ICRI 310.2R-2013
- Surface texture of 60 grit sandpaper is desired for maximum adhesion

Metal

- Blast the surface to near white SSPC-SP10-70 or NACE No. 2 using a Venturi blast nozzle with 100 psi air. The blasting media used shall be properly graded, clean, sharp, angular abrasive similar to Humble Abrasive Flint #7 (6-30) mesh, or Steel Grit (HG25).

INSTRUCTIONS FOR USE

- For concrete surfaces, NOVAGUARD 1900 primer (formerly known as ULTRAPRIME) is recommended
- Refer to NOVAGUARD 1900 primer Product Data Sheet for important information on product use and application

Mix as packaged

- Prior to use, the temperature of Part A and Part B should be at least 70°F (21°C) for at least 48 hours
- Primer: Pour Part B into Part A container and thoroughly mix the two components of the kit together for 2 minutes
- Mortar: Pour Part B into Part A container and thoroughly mix the two components of the kit together for 2 minutes. Slowly add part C and mix for another 1-2 minutes
- Veil Coat: Pour Part B into Part A container and thoroughly mix the two components of the kit together for 1 minute
- Properly mixed material will be a uniform color without light or dark spots
- Apply immediately after mixing

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Application

- On concrete surfaces, first apply NOVAGUARD 1900 primer and allow to dry tack-free
- Apply the Novaguard 6800 primer in a thin, even layer with a roller and pull the excess down with a squeegee. Only prime an area that can be coated in 2-3 hours.
- Apply the mortar by trowel and remove large surface marks
- Allow mortar to set for 2-3 hours
- Knock off any surface nubs with a carbide block or grinder
- Spread the veil coat over the surface with a roller and remove excess material with a squeegee
- Product working time is 20-30 minutes at 75°F (24°C)

Note:

- The working time of the mortar will substantially be reduced if the material is left in the mixing pail

Cleaning procedure

- Cured material may be disposed according to local, state and federal laws and regulations
- All application equipment must be cleaned immediately after use
- Fully cured material can only be removed from equipment or surfaces through mechanical methods

ADDITIONAL DATA

Physical data of cured material	
Characteristic	**Value**
Compressive strength (ASTM C579)	16,000 psi (110 MPa)
Tensile Strength (ASTM C307)	13,300 psi (92 MPa)
Bond Strength (ASTM C321)	>350 psi (>2.4 MPa); 100% concrete failure
Impact Strength (ASTM D4226)	100 in/lbs (11 Nm)
Taber Abrasion (ASTM D1044, CS-17 Wheel, 1 kg load, 1000 cycles)	29 mg
Coefficient of Thermal Expansion (ASTM C531)	$1.2x10^{-5}$ in./in./°F ($2.2x10^{-5}$ cm/cm/°C)
Indentation (MIL-D-3134F)	No Indentation
Water Absorption (ASTM D570)	0.025%

Note:

- The value ranges stated in this Product Data Sheet are based on system processing under laboratory conditions. Equipment configurations and/or field application conditions may produce variances in final system values.

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Spreading rate and film thickness	
DFT	**Theoretical spreading rate**
Primer (Parts A & B) - 10.0 mils (250 µm)	30 ft^2/US gal (0.7 m^2/l)
Mortar (Parts A, B, & C) - 125.0 mils (3125 µm)	10 ft^2/US gal(0.2 m^2/l)
Veilcoat (Parts A & B) - 10.0 mils (250 µm)	30 ft^2/US gal (0.7 m^2/l)

Product Qualifications

- Compliant with USDA Incidental Food Contact Requirements

DISCLAIMER

- For industrial or professional use only
- This product is specifically suitable for use on the substrates mentioned in this document. For application on any other substrates, please always contact your PPG representative for specific instructions and in order to make sure that the product performance can be safeguarded.

SAFETY PRECAUTIONS

- Never seal a container of mixed Part A and B as the continuing exothermic reaction may cause container to explode
- Care should be taken to prevent eye and skin contact
- Read all label and Safety Data Sheet (SDS) information prior to use
- Adequate ventilation to remove solvent must be maintained during application and curing
- Contains styrene monomer, which will give off an odor during application

WORLDWIDE AVAILABILITY

It is always the aim of PPG Protective & 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

- Information sheet | Explanation of product data sheets

WARRANTY

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LIMITATIONS OF LIABILITY

AVAILABILITY OF PACKAGING

Packaging

- 5-gallon kits and 55-gallon drums