

# PPG NOVAGUARD® 2900 Lining System

Formerly known as Milamar 2900 LS

## DESCRIPTION

Monolithic, trowel-applied, epoxy lining system used in elevated temperature applications

## PRINCIPAL CHARACTERISTICS

- Excellent chemical resistance
- Excellent adhesion
- Fast curing
- Excellent corrosion resistance
- TYPICAL USES:
- Chemical secondary containment walls
- Tanks
- Pits and trenches

## COLOR AND GLOSS LEVEL

- Charcoal

## BASIC DATA AT 75°F (24°C)

Data for mixed product	
Number of components	Three
Volume solids	100 ± 2%
Dry to handle	6 hours
Full cure after	96 hours
Shelf life	Part A: at least 12 months when stored cool and dry Part B: at least 12 months when stored cool and dry Part C: at least 12 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

## RECOMMENDED SUBSTRATE CONDITIONS AND TEMPERATURES

- Substrate temperature during application and curing should be between 65°F (18°C) and 85°F (29°C)



# PPG NOVAGUARD® 2900 Lining System

## Formerly known as Milamar 2900 LS

### **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**

### **Mix as packaged**

- Prior to use, the temperature of all materials 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 2 minutes
  - Apply immediately after mixing
- 

### **Application**

- Apply the primer in a thin, even layer with a roller and pull the excess down with a squeegee
- The primer must be overcoated within 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 25 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**

- Fully cured material can only be removed from equipment or surfaces through mechanical methods
  - Cured material may be disposed according to local, state and federal laws and regulations
-

# PPG NOVAGUARD® 2900 Lining System

Formerly known as Milamar 2900 LS

## ADDITIONAL DATA

Physical data of cured material	
Characteristic	Value
Compressive strength (ASTM C579)	15,700 psi (108 MPa)
Tensile Strength (ASTM C307)	11,000 (76 MPa)
Bond Strength (ASTM C321)	>350 psi (>2.4 MPa); 100% concrete failure
Coefficient of Thermal Expansion (ASTM C531)	1.2x10 <sup>-5</sup> in./in./°F (2.2x10 <sup>-5</sup> cm/cm/°C)
Indentation (MIL-D-3134F)	No Indentation
Flammability (ASTM D-635)	Does not support combustion
Water Absorption (ASTM D570)	0.038%

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.

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

## 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

- Read all label and Safety Data Sheet (SDS) information prior to use



# PPG NOVAGUARD® 2900 Lining System

Formerly known as Milamar 2900 LS

## 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.

## 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](http://www.ppgmc.com). The English text of this sheet shall prevail over any translation thereof.

## AVAILABILITY OF PACKAGING

### Packaging

- 1-batch kits
- 2-batch and 4-batch kits

