



## POLYMERICA PRODUCT DATA

### MasterShield VNC Vinyl Ester Novolac Coating

#### PRODUCT PRESENTATION

**MasterShield VNC** is a 100% reactive, vinyl ester novolac used to coat concrete or steel surfaces in chemically aggressive industrial environments.

Due to its high molecular weight and low permeability, **VNC** will withstand exposure to a broad range of acids, alkalis, and solvents.

**VNC** is designed for coating primary and secondary containment vessels, trenches, troughs, pump pads, equipment, and structural members.

Low temperature accelerators are available for positive cures at temperatures from 32 °F to 55 °F.

Certain chemical exposures will require **MasterShield NEC** - consult Chemical Resistance Guide.

**MasterShield NBC with a silica broadcast must be applied prior to application over any epoxy system.**

#### PRODUCT FEATURES

- ➔ excellent resistance to a wide range of chemicals
- ➔ high temperature performance, in many cases up to 350 °F (spills) or 400 °F (dry heat)
- ➔ odorless - can be used in occupied facilities
- ➔ self-extinguishing in thin films
- ➔ best overall performance coating for secondary containment

#### COVERAGE

160 square feet per gallon yields 10 mils DFT. Two coats are recommended for general service.

#### PACKAGING

Unit Size	Part A	Part B	Weight*
1 gallon	1 x 1	1 x 4 oz.	11 lbs.
5 gallons	1 x 5	1 x 1 6 oz.	53 lbs.

\*approximate shipping weight

*maximum 60-day shelf life @ 75°F from date of purchase*

#### INSTALLATION GUIDELINES

**Pre-installation:** As is the case with any impermeable floor coating, any concrete slab on grade to receive this product should be tested for moisture content while in the planning and estimating stages. Product should only be installed if moisture content falls within acceptable range or MVP is used as a primer. Consult **POLYMERICA** Bulletin SP-C for details. For best results, condition both parts A and B at 70 °F - 80 °F for at least 24 hours immediately prior to use.

**Preparation:** Surface must be properly prepared and if required, primed. Preferred application surface temperature is 65°F - 75°F. **Substrate, all mixing vessels, and all tools and equipment must be free of any epoxy contamination (cured or uncured) and free of moisture.** Consult **POLYMERICA** Bulletin SP-C for details.

**Mixing:** Observe all precautions on MSDS and label when using this product. Premix Part A with a low-speed drill equipped with a Jiffy blade for at least two (2) minutes, then blend 3 - 4 ounces of Part B per each gallon of Part A for an additional two minutes.

**Application:** Apply by roller, brush, or spray. For roller application, pour onto surface in ribbons, distribute product with notched squeegee, and lightly backroll with a Pro doo-z medium nap roller to remove squeegee marks. Do not puddle. Tight areas may be applied with a natural bristle brush. Can be sprayed with airless or conventional spray. For spray application only, add up to 1 quart of Styrene per mixed gallon if necessary.

**Cure:** Re-coat in 5 - 8 hours at 70°F. Foot traffic in 8 - 12 hours. Full chemical cure in 3 - 5 days.

**Clean-Up:** Clean skin with soap and water. Use MEK or proprietary epoxy thinners for equipment.

## PHYSICAL PROPERTIES

<b>Composition:</b>	Two-component , peroxide-cured vinyl ester novolac
<b>Color:</b>	Sabre Grey, Brick Red*
<b>Gloss: 60°:</b>	100
<b>Weight/gallon:</b>	9.76 lbs., mixed
<b>Solids Content:</b>	100%
<b>Mix Ratio:</b>	32A : 1B by volume
<b>Pot Life:</b>	45 min. @ 70°
<b>Viscosity:</b>	600 cps. mixed approx.

\*other **MasterShield** colors and custom colors available with restrictions

## PERFORMANCE PROPERTIES

<b>Tensile Strength: (ASTM D-638)</b>	11,000 psi.
<b>Elongation (ASTM D-638)</b>	2.0 - 3.0%
<b>Adhesion: (ASTM D-4541) to metal:</b>	2,500 psi.
<b>to concrete:</b>	350 psi. (concrete fails)
<b>Hardness: (ASTM D-2240)</b>	85 (Shore D)
<b>Abrasion Resistance: (ASTM D-4060)</b>	26 - 28 mg. loss CS-17 wheel, 1 kg. load, 1,000 cycles
<b>Service Temperature:</b>	320°F immersion 400°F dry heat

## SAFETY

Material Safety Data Sheets are available from **POLYMERICA** and should be consulted prior to use of the product. These products are intended for use by professionals only. Keep away from children and those not trained in the use and potential hazards involved.

**MasterShield VNC** is a two-component epoxy system. Part A contains vinyl ester resins and styrene. Part B contains organic peroxide. Both components are flammable. Keep away from all sources of ignition. Provide NIOSH approved respirators AND forced ventilation in confined spaces. Workers should wear gloves, goggles and body covering clothing when mixing or applying product. Clean up with waterless hand cleaners. Do not use solvents, except for equipment as necessary. Be sure to follow all label and MSDS cautions.

For additional information, visit our web site:

[www.polymerica.com](http://www.polymerica.com)

Or e-mail us at - [info@polymerica.com](mailto:info@polymerica.com)

## CHEMICAL RESISTANCE

<b>Reagent</b>	<b>Rating</b>
Acetic Acid 100% .....	R
Acetone .....	L
Bleach .....	L
Citric Acid .....	R
Crude Oil .....	R
Diesel Fuel .....	R
Ethylene Glycol .....	R
Fatty Acids.....	R
Gasoline .....	R
Hydrochloric Acid-37% .....	R
Lactic Acid.....	R
Methyl Ethyl Ketone .....	L
Nitric Acid-50% .....	R
Skydrol .....	R
Sodium Hydroxide 50% .....	R
Sulphuric Acid-70% .....	R
Toluene .....	R
Urea .....	R
Vinegar .....	R
Xylene .....	R

R - Recommended for continuous service

L - Limited recommendation, occasional spills

This chart is intended as an aid in evaluating the performance of these systems in various chemical exposures at 70°F. The data is intended as a guide only. In severe or combination exposures, a sample should be tested under actual or simulated use conditions.

Product data is revised as needed to reflect the most recent technology and field experience. Consult **POLYMERICA** for current printing date of literature.

## WARRANTY

**POLYMERICA** warrants its products to conform to its manufacturing standards. **POLYMERICA** will replace or refund the purchase price of non-conforming products at the seller's option; such remedy being exclusive of all others and sole remedy available to the buyer. Buyer hereby expressly waives claim to additional damages. Any claim under this warranty must be made in writing within 7 days of discovery of noncompliance and no later than one year from the date of delivery of product. No representative, distributor or applicator of these products is authorized to modify product data or warranty.

## IMPORTANT NOTICE

These products are sold subject only to the express warranties contained herein. There are no other warranties by **POLYMERICA** of any nature whatsoever, expressed or implied, including any warranty of merchantability or fitness for a particular purpose in connection with this product. Buyer agrees that seller assumes no liability for remote or consequential damages of any kind which result from the use or misuse of this product. Information contained herein is based on data believed to be reliable, however, it is the Buyer's responsibility to satisfy itself of the suitability of the product for a particular purpose.

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