Benjamin Moore

COROTECH®
HIGH PERFORMANCE

WATERBORNE URETHANE GLOSS V540

Features

- Waterborne urethane
- Outstanding UV protection
- Low VOC
- Excellent for floor applications
- Provides protection against graffiti
- Quick return to service time for minimum down time
- Suitable for use in USDA inspected facilities

General Description

This coating produces an extremely durable, chemical-resistant surface with the benefits of soap and water clean-up. Provides outstanding gloss retention and resists scratches and abrasion. **This is a two component product that requires 3.75 parts of the proper "A" component mixed with 1 part of part "B" catalyst. The components are already premeasured to the proper mix ratio. No measuring required. Do not mix partial kits.**

Recommended For

Properly Prepared and Primed Steel, Iron, Non-Ferrous, Aluminum, Concrete, and Drywall. Typical market segments include Food and Beverage Processing, Industrial Maintenance, Paper and Pulp Processing, Transportation, Industrial Flooring, General Metal Finishing / Fabrication, Chemical Processing, Commercial Structures, Tank Exteriors and other areas requiring a long life, performance urethane.

Limitations

- Do not apply if air or surface temperatures are below 50 °F (10 °C) or above 90 °F (32.2 °C), or in relative humidity levels greater than 85%.
- This product is not for immersion service.
- DO NOT APPLY AT MORE THAN 2.0 MILS DFT

Product Information

Colors — Standard:

White (01), Clear (00)

— Tint Bases:

N/A

Do Not Tint

— Special Colors:

Contact your retailer.

Certifications & Qualifications:

VOC compliant in all regulated areas

The products supported by this data sheet contain a maximum of 100 grams per liter VOC / VOS (0.83 lbs. /gal.) excluding water & exempt solvents.

Qualifies for LEED® v4 Credit

Qualifies for CHPS low emitting credit (Collaborative for High Performance Schools)

CDPH v1 Emission Certified

MPI # 105 & 205 (Graffiti Protection Top-Coat), 256

Suitable for Use in USDA Inspected Facilities

Technical Assistance:

Available through your local authorized independent Benjamin Moore retailer. For the location of the retailer nearest you, call 1-866-708-9180 or visit www.benjaminmoore.com

Technical Data◊ — White

Generic Type		Waterborne Acrylic Polyurethane
Pigment Type		Titanium Dioxide
Volume Solids (mixed as recommended)		47% ± 1.0%
Coverage per Gallon at Recommended Film Thickness		350 – 500 Sq. Ft
Recommended Film Thickness	– Wet	3.2 – 4.6 mils
	– Dry	1.5 – 2.0 mils

Depending on surface texture and porosity. Be sure to estimate the right amount of paint for the job. This will ensure color uniformity and minimize the disposal of excess paint.

Dry Time @ 77 °F @ 50% RH	– To Touch	1 Hour
	– To Recoat	3 Hours
	– Full Cure	4 – 7 Days

*If top coat is not applied within 72 hours abrade the surface to ensure proper inter-coat adhesion. Maximum abrasion and chemical resistance are achieved at full cure; care should be taken to prevent damage to the coating during the curing process. High humidity and cool temperatures will result in longer dry, recoat and cure times.

Dries By		Chemical Cure
Dry Heat Resistance		200 °F
Viscosity @ 77 °F (mixed as recommended)		95 – 102 KU
Flash Point		200º F (TT-P-141, Method 4293)
Gloss / Sheen		Gloss (70+ Units @ 60°)
Surface Temperature at application	– Min.	50 °F
	– Max.	90 °F
Surface must be dry and at least 5° above the dew point		
Thin With		Clean Water
Clean Up Thinner		Water
Mixed Ratio (by volume)		3.75 : 1
Induction time @ 70 °F (21 °C)		15 Minutes
Pot Life @ 77 °F (25 °C)		4 Hours
Weight Per Gallon (mixed as recommended)		10.5 lbs
Storage Temperature	– Min.	45 °F
	– Max.	95 °F

Volatile Organic Compounds (VOC)

12.9 Grams / Liter* 0.10 lbs. / Gallon*

* Catalyzed

◊ Reported values are for White

Surface Preparation

The performance of this product is directly dependent upon the degree of surface preparation employed. Removal of all contaminants should be completed in accordance with SSPC-SP 1 followed by specific preparation methods as indicated on primer data sheets. Rust and mill scale must be removed from carbon steel and iron substrates as outlined on specific primer data sheets. Surface to be coated must be clean, sound and dry. Fresh concrete must age at least thirty days before coating. All oil, grease, release agents, curing compounds, concrete hardeners, laitance and other contaminates must be removed before coating. After the concrete floor has been prepared and allowed to dry (measuring 10% or less with moisture meter), apply one coat of Corotech® V155 Epoxy Pre-Primer at 600-800 sq. ft. per gallon (1.5 mils) following label instructions.

NEW SURFACES:

Steel: Blast selection and choice of primer will be dependent on the severity of exposure and degree of protection required. Maximum protection will be attained using an SSPC- SP-10 Near White Metal Blast followed by 1 coat of Corotech® V150 Epoxy Primer and 1or 2 coats of Corotech® V540 Waterborne Urethane. Please technical service for recommendations on less severe applications.

Concrete: All masonry surfaces must be allowed to cure a minimum of 30 days before painting. Acid etch or abrasive blast all slick, glazed concrete or concrete with laitance. For acid etching, follow all manufacturer directions and safety instructions. Corotech® V620 Concrete Etch is recommended. Rinse and neutralize thoroughly and allow to dry. Prime concrete with 1 coat Corotech® V155 Epoxy Pre-Primer followed by 1 coat of Corotech® V400 Polyamide Epoxy and a topcoat of Corotech® V540 Waterborne Urethane.

Galvanized and Non Ferrous Metals: Solvent clean all surfaces. Apply 1 coat of Corotech® V110 Acrylic Metal Primer or Corotech® V175 Waterborne Bonding Primer.

Previously Painted Surface: Can be applied over old thermoset finishes in good condition. Scuff sand to promote better adhesion.

Fiberglass: Can be applied directly to clean, previously unpainted fiberglass. Scuff sand fiberglass to promote better adhesion.

WARNING! If you scrape, sand, or remove old paint, you may release lead dust. LEAD IS TOXIC. EXPOSURE TO LEAD DUST CAN CAUSE SERIOUS ILLNESS, SUCH AS BRAIN DAMAGE, ESPECIALLY IN CHILDREN. PREGNANT WOMEN SHOULD ALSO AVOID EXPOSURE. Wear a NIOSH approved respirator to control lead exposure. Clean up carefully with a HEPA vacuum and a wet mop. Before you start, find out how to protect yourself and your family by contacting the National Lead Informational Hotline at 1-800-424-LEAD or log on to www.epa.gov/lead .

Application

Mix ratio is 3.75:1. Separately mix the “A” & “B” components thoroughly before mixing together. The use of a drill mixer at low speed will best accomplish this task. Add the full contents of the quart size “B” component to the “A” and thoroughly mix the two together. This product may gel when first mixed. If this occurs, immediately thin mixed product with 10% clean water. After mixing, the usable pot life is approximately 4 hours. At elevated temperatures, pot life will be shortened. Caution: Product must be mechanically mixed. Hand mixing will not blend components properly. Thin with 10% clean water after induction time.

Do not apply Corotech® Waterborne Polyurethane if air or surface temperatures are below 50°F or above 90°F, or in relative humidity levels greater than 85%, or if surface or air temperatures are within 5 degrees of the dew point. Product should be allowed to dry tack free prior to air or surface temperatures being within 5 degrees of the dew point.

Apply using brush, roller or sprayer. If rolling, use ½” lambs wool or ¼” – ½” synthetic roller cover. Keep roller wet. Do not over roll. Clean equipment promptly after use with water.

Note: Coated surfaces may discolor under tires due to plasticizer migration.

Where non-skid characteristics are desired, hand broadcast an appropriate anti-slip aggregate into the wet film then back-roll to encapsulate. Benjamin Moore’s Corotech® Anti-Slip Aggregate V630 works well for non-clear coats.

TEST DATA	
Flexibility (ASTM D1737)	Pass ¼” Mandrel
Dry Heat Resistance	200 °F
Wet Heat Resistance	125 °F
Adhesion (ASTM D3359)	Pass 5B
Accelerated Weathering (ASTM G53) 1000 Hours 1 coat V150 Primer, 2 coats V540	95% Gloss Retention < 0.25 DE Color Change (CMC)
Salt Fog Resistance (ASTM B117) 2000 Hours (Same system as above)	Rust Breakthrough: 10 Rating Rust Area: 0.01%
Abrasion Resistance (ASTM D4060) Taber (CS-10 Wheel, 1000g load, 1000 cycles	80 mg. loss

CHEMICAL RESISTANCE GUIDE (NON-IMMERSION)	
Fresh Water	Excellent
Salt Water	Excellent
Acids	Excellent
Alkalis	Excellent
Solvents	Excellent
Fuel	Good
Acidic Salt Solutions	Excellent
Alkaline Salt Solutions	Excellent
Neutral Salt Solutions	Excellent

SYSTEMS RECOMMENDATIONS	
PRIMERS	
Ferrous Metal (Blasted)	V150 Line, V155-00 or V160 Line
Ferrous Metal (Marginally Prepared)	V155-00 or V160 Line
Non-Ferrous Metal	V110 Line or V175-00
Concrete	V155-00, V160 Line, V163-01, or V400-00 Clear
Aged coatings	Use Direct (Check Compatibility) or use V110 Line or V155-00 as a barrier Coat
COMPATIBLE INTERMEDIATES	
V160 Line, V163-01	
For substrates other than listed above, or for usage in severe environmental conditions, please consult with Corotech® Technical Service.	

Clean Up

Clean up with water.

Environmental Health & Safety Information

Warning

May cause an allergic skin reaction

Suspected of damaging fertility or the unborn child

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Avoid breathing dust/fume/gas/ mist/ vapors/ spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.

Response: IF exposed or concerned: Get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Storage: Store locked up.

Disposal: Dispose of contents/container to an approved waste disposal plant.

IMPORTANT: Designed to be mixed with other components. Mixture will have hazards of all components. Before opening packages, read all warning labels. Follow all precautions.

Caution: All floor coatings may become slippery when wet. Where non-skid characteristics are desired, use an appropriate anti-slip aggregate.

WARNING: Cancer and Reproductive Harm– www.P65warnings.ca.gov

This document represents hazards of the product referenced above. Refer to the individual Safety Data Sheet for hazards of the specific product you will be using

KEEP OUT OF REACH OF CHILDREN
PROTECT FROM FREEZING
FOR PROFESSIONAL USE ONLY

Refer to Safety Data Sheet for additional health and safety information.