Benjamin Moore

COROTECH®
HIGH PERFORMANCE

ALIPHATIC ACRYLIC URETHANE GLOSS V500

Features

- Resistant to hydraulic fluid
- Outstanding UV protection
- High chemical and abrasion resistance
- Suitable for use in USDA inspected facilities
- Excellent anti-graffiti coating

General Description

Aliphatic Acrylic Urethane is a multi-use, two-component urethane appropriate for use on both metal and masonry. This product provides excellent gloss and color retention when used on exterior surfaces exposed to sunlight and rain, and the highly cross-linked formula provides superior abrasion, chemical, and solvent resistance. Due to these outstanding features, urethanes are often used as the final layer in a multi-layer system on steel or masonry. **This is a two component product that requires 4.2 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, Concrete, and Fiberglass. Ideal for 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 °C)
- This product is not for immersion service.
- Coated surfaces may discolor under tires due to plasticizer migration.

Product Information

Colors — Standard:

Clear (00), White (01), Black (80)

— Tint Bases:

Tintable White (86), Deep Base (87), Clear Base (88)

Tint With Industrial Colorants Only

— Special Colors:

Contact your retailer.

Certification & Qualifications :

The products supported by this data sheet contain a maximum of 250 grams per liter VOC / VOS (2.09 lbs/gal.) excluding water & exempt solvents.

Masters Painters Institute
MPI # 72, 83, 105 & 205

Suitable for Use in USDA Inspected Facilities

Meets Performance Requirements of Mil-C-85285/85286/83445

VOC REGION	COMPLIANT
FEDERAL	YES
OTC	YES
OTCII	YES
CARB	YES
CARB07	YES
UTAH	YES
AZMC	YES
SCAQMD	NO

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		Aliphatic Acrylic Urethane
Pigment Type		Titanium Dioxide
Volume Solids (mixed as recommended)		72% ± 1.0%
Coverage per Gallon at Recommended Film Thickness		350 – 500 Sq. Ft.
Recommended Film Thickness	– Wet	3.2 – 4.6 mils
	– Dry	2.3 – 3.3 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 (25 °C) @ 50% RH	– To Touch	2 Hours
	– To Recoat	8 Hours
	– Full Cure	72 Hours
*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		300 °F
Viscosity @ 77°F (mixed as recommended)		70 ± 5 KU
Flash Point		98 °F (TT-P-141, Method 4293)
Gloss/Sheen		Gloss (85+ @ 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		Do Not Thin
Clean Up Thinner		Corotech® V700 Urethane Reducer
Mixed Ratio (by volume)		4.2 : 1
Induction time @ 70 °F (21 °C)		15 Minutes
Pot Life @ 77 °F (25 °C)		3 Hours
Weight Per Gallon (mixed as recommended)		11.0 lbs.
Storage Temperature	– Min.	40 °F
	– Max.	90 °F

Volatile Organic Compounds (VOC)
247.5 Grams / Liter* 2.06 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 using Corotech® V600 Oil & Grease Emulsifier 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.

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 or V160 Epoxy Mastic and 1or 2 coats of Corotech® V500 Aliphatic Acrylic Urethane. Please contact your Corotech® representative or 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. 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® V500 Aliphatic Acrylic 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. Can also use most epoxy primer and intermediate coatings.

Previously Painted Surface: Can be applied over old thermoset finishes in good condition. Test patches are recommended to check for wrinkling or lifting of existing coatings. If lifting occurs, Corotech® V155 Pre-Primer may be used over all existing coatings as a barrier coat.

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 the “A” and “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. Allow 15 minutes @ 77 °F induction or “sweat-in” time (@ 77 °F) prior to applying the mixed product to the substrate. Do not apply Corotech® Aliphatic Acrylic Urethane 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.

All floor coatings may become slippery when wet. 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.

Airless Spray (Preferred Method): Tip range between .013 and .017. Total fluid output pressure at tip should not be less than 2400 psi.

Air Spray (Pressure Pot): DeVilbis MBC or JGA gun, with 704 or 765 air cap and Fluid Tip E.

NOTE: Do not allow material to remain in hoses, gun or spray equipment. Thoroughly flush all equipment with recommended thinner. If material begins gelling, immediately flush equipment as product has reached pot life.

Roller: Industrial Cover with Phenolic core and a nap size of ¼” to ½”.

TEST DATA	
Flexibility (ASTM D1737)	Pass 1/4” Mandrel
Dry Heat Resistance	300 °F
Wet Heat Resistance	125 °F
Adhesion (ASTM D3359)	Pass 5B
Accelerated Weathering (ASTM G53) 1000 Hours 1 coat V150 Primer, 2 coats V500	95% Gloss Retention < 1.5 DE Color Change (CMC)
Salt Fog Resistance (ASTM B117) 400 Hours (Same system as above)	Rust Breakthrough: 10 Rating Rust Area: 0.01%
Abrasion Resistance (ASTM D4060) Taber (CS-17 Wheel, 1000g load, 1000 cycles)	44 mg. loss

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

SYSTEMS RECOMMENDATIONS	
PRIMERS	
Ferrous Metal (Blasted)	150 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

V700 Urethane Reducer.

Environmental Health & Safety Information

Warning

May cause an allergic skin reaction

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause damage to organs through prolonged or repeated exposure

Flammable liquid and vapor

Prevention: Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves. Do not breathe dust/fume/gas/mist/vapors/spray. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

Response: IF exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. In case of fire: Use CO2, dry chemical, or foam for extinction.

Storage: Store locked up. Store in a well-ventilated place. Keep cool.

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
FOR PROFESSIONAL USE ONLY

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