

# BERNYL™ UNISURFACER

DF5354-9001 **BE-027100**

Becker Acroma

## DESCRIPTION

Post catalyzed acid cured primer coat for wood and wood-substrates. This product is specially designed for "Fladder sanding", but is also very good for other machine sanding or handsanding. The coverage of this product is extremely good and its hold-out of the top coat is excellent. Using Bernyl Unisurfacer as a primer coat on MDF and a top coat with Matador gives you a coating exceeding most of the available systems.

## HIGHLIGHTS

- » *Meets E1 Formaldehyde Std*
- » *Low HAPS Solvent System*
- » *No Phthalate Plasticizers*
- » *Fast Dry Time*
- » *Excellent Sanding Properties*
- » *Excellent Filling Properties*
- » *Can be used on Solid Wood*
- » *Designed Specifically for MDF*
- » *Can be Tinted*

## PRODUCT DATA:

Colour:	Wet: White Dry: White	VOC:	447 g/l or 3.73 lbs/gal
Solids % by Vol.:	47 % (Theoretical)	Lbs. VOC / Lbs. Solids:	0.53 before catalyzed
Solids % by Wt.:	65 % (Theoretical)	Lbs. VHAPs / Lbs. Solids:	0.08 before catalyzed
Weight / Gal.:	10.78 lb/gal	Flash Point (PMCC):	13° C / 55 ° F
Spec. Gravity:	1.29	Frost Sensitivity	No
Viscosity 23°C / 73°F:	#4 Ford: 175-215 Sec.	Photo Chemically Reactive:	Yes
Viscosity 23°C / 73°F:	DIN 4: 165-205 Sec.	Shelf Life:	12 months (at 15-25° C / 59°-77° F)
Viscosity 23°C / 73°F:	Zahn #2 sig.: N/A Sec.	Theo. Coverage@1mil dry	752 Sq. Ft./Gal. 100% Efficiency

## MIXING / APPLICATION:

**Working Temp:** >18° C, 65° F substrate, coating and air  
**Hardener:** 2750 Regular; 494 Slow; 309 HAPs Free  
**Catalyzation:** 13 % Parts by volume  
**Pot Life:** 1 Day (23° C / 73° F)  
**Mixing:** Add Catalyst under agitation. Use proper graduated cup for measuring. Be attentive to the correct ratio. Add thinner after catalyst. Add thinner to desired viscosity, typically about 20 %.  
**Sealer:** Bernyl Transparent Surfacer may be used.  
**Reducer:** Thinner 219 - Regular; Thinner OC 140 - Fast; Thinner 309 - Haps Free, Thinner 419 – Slow, Haps Free  
**Application:** 105 -150 (g/m<sup>2</sup>) Approx. 3.5 to 5 wet mils; Min 1 mil wet – Max 5 mil wet @ 60%RH  
**Surface Prep:** Substrate should be clean and free of grease and oil. Moisture content of the wood should be between 6%-8%. Whitewood sanding with 150 or 180 grit before spraying, MDF with 220-240 grit before spraying Sand the first coat (with 220 to 320 paper) in order to eliminate grain raising, if any, and improve adhesion of the subsequent coat. Topcoat within 8 hours of sanding.  
**Use Directions:** For interior use only. Mix thoroughly before application. Stack only when the surface temperature is below 35° C/95° F. Quicker stacking times are achievable relative to the amount of product that is applied.  
**App. Equip.:** Conventional & HVLP Siphon Feed and Pressure Pot Systems and Airless Air Assist Equipment.  
**Tinting:** Some tinters will cause unstable colour combinations, specifically 844/844x Yellow Oxide and Lamp Black. Maximum tint level – 10 % by weight. Prior to application test a sample piece to assure proper colour match.  
**Ind. Standards:** This product meets the Conversion Varnish Opaque quality standard for AWI.

## DRYING TIMES TO SAND / STACK:

Method	Drying Temp.	Drying Time (@ 60 % RH and thickness @ 1 mil dry)
Air Drying	20° C / 68° F	1-2 hours. dry to <b>sand</b> / 1 – 2 hr. dry to <b>stack</b>

## APPLICATION RECOMMENDATIONS:

### APPLICATION EQUIPMENT SETTINGS

Method of Application	Wet Film		Dry Film	
	Mils	g/m <sup>2</sup>	Mils	Microns
Conventional – Siphon Fed	3.5 – 5	105 - 150	1.3 – 1.8	33-45
Conventional – Pressure Pot	3.5 – 5	105 - 150	1.3 – 1.8	33-45
Airless Air Assist	3.5 – 5	105 - 150	1.3 – 1.8	33-45
HVLP - Siphon Fed	3.5 – 5	105 - 150	1.3 – 1.8	33-45
HVLP - Pressure Pot	3.5 – 5	105 - 150	1.3 – 1.8	33-45

All measurements recommended are based on results at temperatures of 23°C/ 73°F. Viscosity will vary depending on the temperature of the liquid. The above mentioned application equipment recommendations are guidelines only. The noted settings are starting point recommendations and that adjustment to the settings and equipment may be needed to obtain the desired results. Please refer to your specific equipment manufacturer's recommendations for equipment set up.

#### REDUCTION – TIP SIZE – PSI SETTINGS

##### Conventional Equipment Siphon Feed:

Reduce to 28-32 seconds #4 ford viscosity cup, nozzle size 0.070 inches (1.8mm) – 0.0 inches (2.0 mm), atomizing air 25 psi (1.7 bar)–40 psi (2.8 bar).

##### Conventional Equipment Pressure Pot:

Reduce to 28-32 seconds #4 ford viscosity cup, nozzle size 0.70 inches (1.8mm) – 0.080 inches (2 mm), atomizing air 25 psi (1.7 bar)–40 psi (2.8 bar), Pot pressure 7 psi (0.48 bar) to 10 psi (0.68 bar)

##### Airless Air Assist Equipment:

Reduce to 28-32 seconds #4 ford viscosity cup, tip size .015 inches (0.33mm) - .016 inches (0.41mm), fluid pressure 290 psi (20 bar) – 580psi(40 bar), atomizing air 11psi (0.8 bar) to 17psi (1.2 bar).

##### HVLP Equipment Siphon Feed:

Reduce to 28-32 seconds #4 ford viscosity cup, nozzle size 0.070inch (1.8 mm) -.080inch ( 2 mm) nozzle, atomizing air 25 psi (1.7 bar) -45 psi (3.1bar).

##### HVLP Equipment Pressure Pot:

Reduce to 28-32 seconds #4 ford viscosity cup, nozzle size 0.070 inches (1.8mm) – 0.080 inches (2 mm), atomizing air 25 psi (1.7 bar) -45 psi (3.1 bar). Pot pressure 7 psi (0.48 bar) to 10 psi (0.68 bar)

#### PRODUCT NOTES

- Make sure to remove any dirt, grease, glue or other construction contaminants and sand substrate prior to priming with Bernyl Unisurfacer
- Please note that when using Bernyl Unisurfacer on solid wood, it is important that the wood retains a profile after sanding for the coating to adhere. For best adhesion, finish sanding on solid wood, should be done using a maximum of 150-180 grit sandpaper. Always be sure that sanding belts and sand paper used are not worn, as worn sanding materials tend to polish the wood.
- Please note that when using Bernyl Unisurfacer on MDF sand any routed areas with a minimum of 400grit. UV filled MDF board must be sanded before application of Bernyl Unisurfacer to assure good inter-coat adhesion.
- Maximum recommended dry film thickness for total coating system is 7 dry mils.
- Some alkyd paints are affected when applied over acid catalyzed coatings, and may not cure at all. Testing is recommended.

#### CONTACTS:

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**TESTING:** Due to the wide variety of substrates, surface preparation methods, application methods, and environments, the customer should test the complete system for adhesion, compatibility and performance prior to full scale application.

**FOR INDUSTRIAL SHOP APPLICATION:** Thoroughly review Material Safety Data Sheet (MSDS) for safety information and cautions prior to using this product. For Regulatory compliance data i.e. VOC, HAPS, etc., obtain an Environmental Data Sheet (EDS) prior to using the product. A MSDS and/or EDS is available from your local distributor or representative. Please direct any questions or comments to 1-800-524-5979.

**NOTE:** Product Data Sheets are periodically updated to reflect new information relating to the product. It is important that the customer obtain the most recent Product Data Sheet for the product being used. The information, rating, and opinions stated here pertain to the material currently offered and represent the results of tests believed to be reliable. However, due to variations in customer handling and methods of application which are not known or under our control, The Sherwin-Williams Company cannot make any warranties as to the end result.