



WeatherBloc™ Thermal Insulating Coating

Selection & Specification Data

Product Name	WeatherBloc Thermal Insulating Coating
Product Number	WB GEN2
Generic Type	Water-based Acrylic Residential/Commercial Insulation Coating
Description	WeatherBloc Thermal Insulating Coating is a water-based acrylic comprised of air-encapsulated, insulating particles that produce thermal insulation-like qualities. It is specifically designed for rooftops, warehouses, barns, storage areas, mobile homes, portable buildings, residential homes, trailers, containers, coolers, walls and sheds.
Features	<ul style="list-style-type: none"> ◆ Excellent solar reflectance ◆ Excellent anti-conduction factor ◆ Excellent application characteristics ◆ Fast recoat times ◆ Helps deaden sound ◆ Applies to almost any surface ◆ Low permeability ◆ Low VOC product ◆ Helps to seal ◆ Provides anti-condensation protection
Gloss	Flat
Color	White. Custom tinting can be done at special request.
Priming	Self-priming over non-ferrous materials (stainless steel & aluminum). Primers are required for carbon steel substrates.
Topcoats	Please call
Wet weight	6.10–6.30 lbs/gal
Weight dry film to area	0.045lbs/ft ² 0.217 kg/m ²
Volume Solids Content	72–75%
Average Coat Thickness	70°–130°F 20–22 mils WFT 21°–54°C 0.5 mm WFT
Practical Wet Coat Coverage	60–70 ft ² /gal @ 20mils 1.62 m ² /liter @ 0.5 mm
Practical Dry Coat Coverage	47–52 ft ² /gal @ 20mils 1.17–1.27 m ² /liter @ 0.5 mm
VOC Content	Low VOC
Limitations	Applications should not exceed 200°F (93°C) sustained or peak areas above. Do not subject wet coating in pail format to freezing conditions.

Substrates & Surface Preparation

Surface Prep	Surface should be dry and free of foreign matter. Surface prep can be used to NACE 1-3 (SSPC SP 5-6) when applicable.
Ferrous Surfaces	Should be primed prior to application of WB. Since the coating is water-based, it is important to have a boundary layer of protection to eliminate a flash rusting.
Non-ferrous Surfaces	The coating can be applied directly to non-ferrous surfaces. Surface should be clean and free of oil, dirt or any other foreign matter.

Application Equipment

Listed below are the general equipment guidelines for the application of this product.

Airless Sprayer	<table border="0"> <tr> <td>Pump Ratio:</td> <td>33:1 or larger</td> </tr> <tr> <td>Volume:</td> <td>1.5 gallons or greater</td> </tr> <tr> <td>Hose:</td> <td>3/8" or larger with no more than 3' of 1/4" whip. 1/2" hose recommended for length above 50'.</td> </tr> <tr> <td>Tip Size:</td> <td>.017" (for tight spots) .019–.023" (for normal use)</td> </tr> <tr> <td>Pressure:</td> <td>Minimum of 3000 PSI</td> </tr> </table>	Pump Ratio:	33:1 or larger	Volume:	1.5 gallons or greater	Hose:	3/8" or larger with no more than 3' of 1/4" whip. 1/2" hose recommended for length above 50'.	Tip Size:	.017" (for tight spots) .019–.023" (for normal use)	Pressure:	Minimum of 3000 PSI
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Pressure:	Minimum of 3000 PSI										
Small Spray Application	Please consult Mascoat for this sprayer. This gun is excellent for small applications and touchups.										
Brush	Brushing is only recommended for small areas or for use as a touchup of less than 0.5 ft ² (0.04 m ²). Brushing can inhibit coating performance. Please consult Mascoat for detailed instructions.										
Roller	Not recommended for this coating										

Application Conditions

Surface Temperatures	Surface temperatures for applications should be 40°F or above. Lower surface temperatures will increase dry times.
Applications	<p><i>Ambient & Cold (60°–139°F, 15°–59°C):</i> For temperatures (surface or ambient – whichever is lower), an initial tack coat is recommended of 10 mils (0.25 mm or 250 microns). This tack coat will help to eliminate sag on vertical wall applications. Tack coat should be dry to touch prior to next pass. Typical coat thickness should not exceed 20–22 mils (0.5 mm) wet. Coating can be reapplied after each coat is thoroughly dry.</p> <p><i>Hot (>140°F, >60°C):</i> Application of WeatherBloc should be applied as per Mascoat detailed hot application instructions. Please consult Mascoat for instructions.</p>
Application Thickness	Product can be applied in successive coats to increase insulation ability. There are no upper limits of total film thickness.
Dryfall	Make sure to mask any area prior to application. Dryfall occurs within a 3 ft. radius (1 meter).

Other Coating Specifications

Item	English Value (Metric Value)	Test Method
Cyclic Salt Fog	Excellent 2000 hrs	ASTM B-117
UV-A Exposure	Excellent 2000 hrs	ASTM D-5894
Humidity Cabinet	Excellent 2000 hrs	ASTM D-4585
QUV	Excellent 2000 hrs	ASTM G-154
Cross Hatch Adhesion	100% 5 B	ASTM D-3359
Pull Apart Strength	300–340 psi	ASTM D-4541
Elongation Rate	Above 600%	ASTM D-638
Thermal Conductivity	0.660Btu-in/ft ² -hr-°F (0.097 W/m/K)	ASTM C-177
	0.090Btu-in/ft ² -hr-°F (0.0130 W/m/K)	RvE Testing
Emittance	0.9—Hemispherical 300k	E-903
Reflectivity	0.76	E-903
Transmittance	0.00	Calculated
Absorptance	0.23	Calculated
Flame Spread	5	ASTM E-84
Smoke Developed	5	ASTM E-87
Cone Calrimeter	>6	ASTM E-1384 -97

Mixing & Thinning

Mixing Only a mud mixing paddle should be used. Use 1/2" drill motor to stir contents with paddle. *Make sure drill is set to reverse to ensure that the paddle will not mar the bucket's inner wall.* Please consult Mascoat for paddle, if needed.

Thinning Thinning is normally not needed in most applications. Thinning should not exceed one quart per five gallon pail for high temperature applications. Please consult Mascoat for specific instructions, if thinning is desired.

Pot Life Coating is one part, so no catalization is needed. Pail can be reused if properly sealed.

Package, Handling & Storage

Container 5 gallon pail (18.92 liters)

Container wet Weight with pail & lid 33.10 lbs per 5 gallon pail (15.01 kg) per 20 liters

Net Contents 31.0 lbs (14.06 kg)

Flash Point (Setaflash) None

Storage Product should be kept out of direct sunlight and stored in a climate controlled warehouse with temperatures ranging from 50°F to 110°F (10°C to 43°C).

Shelf Life One year shelf life from manufacture date

Caution Do not let product freeze.

Cleanup & Safety

Cleanup Equipment may be cleaned with soap and water.

Safety Half-face respirator recommended with ammonia cartridge or better. Eye protection recommended.

Ventilation Recommended for constricted areas.

Caution This material is not for human consumption.

Clothing Safety clothing & gloves are recommended.

Dry Times vs. Humidity

Surface Temperature	% Humidity	Time Between Coats (hours)
50–60 °F (10–15°C)	10–30%	6.00
	31–50%	8.00
	51–70%	10.00
	>70%	12.50
61–70°F (16–21°C)	10–30%	4.00
	31–50%	5.50
	51–70%	6.50
	>70%	8.00
71–80°F (22–26°C)	10–30%	2.00
	31–50%	3.00
	51–70%	3.50
	>70%	4.00
81–90°F (27–32°C)	10–30%	1.50
	31–50%	2.00
	51–70%	2.50
	>70%	3.00
91–100°F (33–37°C)	10–30%	1.25
	31–50%	1.50
	51–70%	1.75
	>70%	2.00
101–110°F (38–43°C)	10–30%	1.00
	31–50%	1.25
	51–70%	1.50
	>70%	1.75
111–120°F (44–49°C)	10–30%	0.75
	31–50%	1.00
	51–70%	1.25
	>70%	1.50
121–130°F (50–54°C)	10–30%	0.50
	31–50%	0.75
	51–70%	0.75
	>70%	1.00

Use 90° thumb test or moisture meter prior to recoat to ensure coating is dry. These are the estimated dry times for 15–20 mils of Weather Bloc wet. Dry time may vary depending on other conditions such as wind or enclosed environments. Lighter thickness passes will expedite dry times. Forced ventilation in confined areas will also expedite dry times.

Curing Schedule

Temperature	Cure Time
50–60°F (10–15°C)	60–72 hrs
61–70°F (16–21°C)	48–60 hrs
71–80°F (22–26°C)	36–48 hrs
81–90°F (27–32°C)	20–24 hrs
91–100°F (33–37°C)	18–20 hrs
>100°F (>37°C)	14–16 hrs

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