

BR Solvent Polyurethane

Metallic & Solid Standard Colors

TECHNICAL DATA SHEET

Solvent-Based Polyurethane Coating



Product Codes

Part A Item Code	Part B Item Code	Color	Finish
BR-SBPUCLA	BR-SBPUB	Clear	Gloss, Semi-Gloss, Satin, Eggshell, Matte
BR-SBPUCA	BR-SBPUB	Solid Colors	Gloss, Semi-Gloss, Satin, Eggshell, Matte
BR-SBPUMA	BR-SBPUB	Metallic	Gloss, Semi-Gloss, Satin, Eggshell, Matte
BR-SBPUWPA	BR-SBPUB	White/Pastel Base	Gloss, Semi-Gloss, Satin, Eggshell, Matte
BR-SBPUAA	BR-SBPUB	Accent Base	Gloss, Semi-Gloss, Satin, Eggshell, Matte
BR-SBPUDA	BR-SBPUB	Deep Base	Gloss, Semi-Gloss, Satin, Eggshell, Matte

Description

BR Solvent-Based Polyurethane high cross-link density acrylic aliphatic polyurethane finish coat is available in gloss, semi-gloss, satin, egg-shell and matte/flat. BR Solvent-Based Polyurethane comes in solid colors, metallics, and iridescents. BR Solvent-Based Polyurethane is less than 50 grams per liter VOC and LEED V4 compliant. BR Solvent-Based Polyurethane can be applied over surfaces primed with BR DTM High Build Epoxy Primer.

Recommended Uses

- Add a metallic, iridescent (pearl) and solid color effect
- Ideal as a finish coat to solid colors
- Can be used on ferrous and non-ferrous substrates

Features & Benefits

- Aliphatic Polyurethane
- Low VOC
- Fine Finish Quality
- Interior /Exterior
- USGBC LEED Version 4 Compliant
- Non-Yellowing
- Field & Shop Application
- Exceptional Weathering & Durability

Surface Preparation

Best results are achieved when BR Solvent-Based Polyurethane are applied over a two-component primer such as Pittsburgh Paints Company BR DTM High Build Epoxy Primer. The primer is UV resistant for use under solid colors as well as metallic and iridescent colors which are translucent.

Good painting practices require that before applying coatings a test or mock-up be performed to ensure that adhesion, appearance and color meet the expectations of the owner. Coating performance is proportional to the degree of surface preparation performed prior to priming the substrate. All surfaces must be clean, dry and free of oil, grease, dirt, salt deposits or other contamination and properly abraded. Recommended preparation is as follows:

Steel – Clean the surface of all foreign material SSPC-SP1 followed by SSPC-SP2, SP3, SP6, SP7, SP11, SP14 or SP15.

Aluminum - Remove all contaminants per SSPC-SP1 and abrade using hand tool, power tool or SSPC-SP16 to obtain a profile equivalent to 220 grit sandpaper.

Galvanized Steel – Preparation shall meet ASTM D6386 –10. Remove all contaminants per SSPC-SP1, check for the presence of chromates or other passivation treatments per SSPC-SP16. If passivation treatment exists, brush-off blast cleaning per SSPC-SP16 is required. Complete removal of chromates or other passivating treatments

must be confirmed by testing (SSPC-SP16 or ASTM B 201) prior to coating application.

Concrete, Masonry, MDF, Drywall – Surface must be clean, dry and free of any dirt, dust, grease, oil, wax, mildew, disintegrated or chalky materials or other contaminants. BR Solvent-Based Polyurethane is not recommended for floors.

Previously Coated Surfaces - Surface must be clean, dry, and free of any dirt, dust, grease, oil, wax, mildew, disintegrated or chalky materials or other contaminants. Aged coatings should be abraded to achieve an acceptable profile to provide adequate adhesion for the primer and topcoat.

Application

Environmental Conditions: Air and surface temperature must be above 50° F and no more than 95° F. Surface temperature must be at least 5°F (3°C) above the dew point.

Application: BR Solvent-Based Polyurethane may be applied by spray, roller or brush application. For spray application, apply using 40-55 PSI at the gun for siphon and gravity feed spray guns, 10 PSI max. for HVLP spray guns. Apply 1-3 medium wet coats until desired coverage and flow is reached. Allow a 5 to 10-minute flash time between coats of clear. Recommended film thickness is 2.0 to 3.0 mils DFT. Special care should be taken on edges that need to be coated to ensure that adequate film build is achieved. A stripe coat may be necessary for these conditions.

Instructions - Mix Ratio

Stir or shake each container before mixing together. Mix thoroughly 3 parts BR Solvent-Based Polyurethane with 1 part BR Solvent-Based Polyurethane Activator.

Reduction is not necessary. However, paint may be reduced up to 10% by volume using acetone.

Application for “Solid Colors” & “Metallic Colors”

Environmental Conditions: Air and surface temperature must be above 50°F and no more than 95°F. Surface temperature must be at least 5°F (3°C) above the dew point.

Application: Solid colors may be applied by spray, roller and brush application. Metallic colors should be applied by spray application only. Allow a 5 to 10-minute

flash time between coats if spray applied. BR Solvent-Based Polyurethane should be applied to achieve a recommended dry film thickness between 1.0 to 3.0 mils. For detailed metallic and iridescent application instructions, see Pittsburgh Paints Company' Guidance: “Metallic and Iridescent Finishes.”

Spray Gun Set-Up & Pressure

Type	Fluid Tip	Spraying Pressure
Siphon Feed	1.4mm – 1.7mm	40-65-PSI
Gravity Feed	1.3mm – 1.4mm	40-65-PSI
HVLP Siphon	1.6mm – 1.8mm	max. 10 PSI @ the air cap
HVLP Gravity	1.3mm – 1.5mm	max. 10 PSI @ the air cap
Pressure Pot	1.1 mm- 1.3 mm	29 PSI - 58 PSI
Airless Spray*	.011” - .015”	2500 PSI 100 mesh filter

*For solid colors only, not recommended for application of metallics

Dry Times

BR Solvent-Based Polyurethane may be air dried or force dried

Dry Times @ 70°F (21°C) & 50% RH	
Dust Free	15 Minutes
Tack Free	3 Hours
Dry Time	24 Hours
Recoat	May be recoated with itself at any stage. Sanding will become necessary after 24 hours.
Force Drying	30 Minute flash time / 140°F for 20 min. Allow a 10 min cool down time.

Temperature Resistance (Dry): Continuous 200°F / Intermittent 250°F

Clean Up

Clean all spray equipment immediately after use. Acetone may be used to clean spray equipment.

Refer to Material Safety Data Sheet for proper handling of products listed in this bulletin.

Technical Data	
% Solids by Volume	34% as packaged, 38% as applied
Sprayable VOC (as applied)	Max. 50 g/l (less water & exempt compounds)
Components	Part A (resin) 3 parts / Part B (Activator) 1 part
Pot Life	3 hours @ 70° F, 21° C
Shelf Life	one year (unopened) when properly stored
Flash Point	109° F, 42° C
Mix Ratio	3:1 (3 parts Part A: 1 part Part B (Activator))
Recommended Dry Film	2.0 mils to 3.0 mils
Theoretical Coverage	609 – 203 sq ft at recommended DFT (no loss)

Test Method	System (7 day, ambient temp. cure)	Results
ASTM D-3359 Adhesion	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT BR Solvent-Based Polyurethane Topcoat	100% retention (no tape off)
ASTM D-4587 QUV Resistance Accelerated Weathering	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT BR Solvent-Based Polyurethane Topcoat	Gloss - 96% retention after 2020 hours delta E color change - 0.27 after 2020 hours No blistering, rusting, checking or cracking
ASTM B-117 Salt Fog	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT BR Solvent-Based Polyurethane Topcoat	No face blistering after 500 hours No face corrosion after 500 hours
ASTM D-2287 Humidity Resistance	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT BR Solvent-Based Polyurethane Topcoat	No blistering, cracking, softening or delamination after 500 hours Gloss - 97% retention after 500 hours
ASTM D-1308 Chemical Resistance 24-hour spot test	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT BR Solvent-Based Polyurethane Topcoat	87 octane unleaded gasoline - rating 5 no effect 10% Sulfuric Acid (Acid Rain) – rating 5 no effect
ASTM D-5402 Chemical Resistance solvent rubs	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT BR Solvent-Based Polyurethane Topcoat	Xylene - 200 double rubs no effect Methyl ethyl ketone (MEK)-200 double rubs no effect 87 octane unleaded gasoline - 200 double rubs no effect.
ASTM D-522 Flexibility	Cold Rolled Steel Q-Panel Solvent wipe 02150 Metal Conditioner 1.4 mils DFT BR Solvent-Based Polyurethane Topcoat	180-degree bend, 1/4" mandrel - pass

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