

BR Aliphatic Polyurethane

Aliphatic Polyurethane 2k

TECHNICAL DATA SHEET

Zero V.O.C. Water-Based Aliphatic Polyurethane Coating



Product Codes

Product Name	Part A Item Code	Part B Item Code
BR Aliphatic Polyurethane White/Pastel Base Part A (1 Gal Kit)	BR-APUWPA	BR-APUB
BR Aliphatic Polyurethane Deep Base Part A (1 Gal Kit)	BR-APUDA	BR-APUB
BR Aliphatic Polyurethane Accent Base Part A (1 Gal Kit)	BR-APUAA	BR-APUB

Color & Finish

Color	Finish
Clear	Matte
	Satin
	Gloss
White Tint: 4 Oz / Gallon	Matte
	Satin
	Gloss
Deep Base Tint: 8 Oz / Gallon	Matte
	Satin
	Gloss
Accent Base Tint: 11 Oz / Gallon	Matte
	Satin
	Gloss

The use of fluted, scored block, raked joints, sandblasted or etched surfaces will result in greater absorption and lower coverage rates, by up to 40%. Test these areas for the expected coverage rate before general application. Allow for this increased surface area when determining material requirements.

Description

The Pittsburgh Paints Company BR Aliphatic Polyurethane is a two-component, high performance, zero VOC, odorless, water-based, aliphatic paint/coating. BR Aliphatic Polyurethane provides years of excellent protection against harsh weather conditions, UV exposure, corrosion, physical damage, and has elastomeric properties.

Recommended Uses

- Warehouses
- Food and Beverage Facilities
- USDA Inspected Facilities*
- Commercial Vehicles
- Airports
- Stadiums
- Sound Walls
- Stadiums
- Direct-To-Metal
- Aluminum & Metal
- Galvanized & Ungalvanized Steel

**Suitable for USDA inspected facilities*

Features & Benefits

- Scratch Resistant
- Non-Yellowing & UV Resistant topcoat
- Anti-Carbonation Protection
- Apply Direct-to-Metal* & Concrete
- Chemical & Acid Resistant
- Excellent As A Protective Floor Coating, Or Topcoat Applied Over A Primer Epoxy, As A High-Gloss, Chemical/Acid Resistant Topcoat For Industrial Concrete Flooring Applications

**Do not use on bare ferrous metal. Only apply to ferrous metal that is properly prepped and primed to receive a water based coating.*

Coverage Rate by Substrate (Theoretical)

The coverage depends on the surface. Test the product on a small area of the substrate to estimate coverage. Extremely porous surfaces may require multiple coats.

Substrate	Sq Ft/ Gallon
Textured Surfaces	approx. 250-300
All Masonry Surfaces	approx. 300
Painted Surfaces	approx. 400
Wood Surfaces	approx. 300
Metal	approx. 400
Tile	approx. 350

The use of fluted, scored block, raked joints, sandblasted or etched surfaces will result in greater absorption and lower coverage rates, by up to 40%. Test these areas for the expected coverage rate before general application. Allow for this increased surface area when determining

material requirements.

Test Panel

Always apply BR Aliphatic Polyurethane onto a mock wall or test panel. Test the wall or an actual surface area to determine acceptable color, surface porosity, application rates and methods before starting general application.

Surface Preparation

Prior to application, all surfaces shall be clean and dry with no oils, dirt, debris, or minerals such as efflorescence, lime and calcium. These stains, along with others, will prevent proper penetration of BR Aliphatic Polyurethane to sufficiently seal for the warranty period.

Mixing Instructions

1. Stir Part A for 2 minutes with jiffy blade at slow speed (500 RPM) to fully disperse the product.
2. To catalyze the product, pour Part B into Part A and mix for 2 – 3 minutes.
3. Pour a portion of Part A back into Part B container until it's full, mix well for 30 seconds, pour back into Part A. Mix for another 2-3 minutes. Allow the product to stand for 5 minutes before applying. Loosely cover the mixed product. Do not re-seal the mixed product.

IMPORTANT: Mark time to establish pot life. Pot life is 1-1.5 hours at 75°F. Product should not be mixed with other products or other containers of The Pittsburgh Paints Company BR Aliphatic Polyurethane.

Thinning is recommended to avoid lap marks and allow for proper self-leveling characteristics. Use clean water only.

Application Instructions

SMOOTH SURFACES

The Pittsburgh Paints Company BR Aliphatic Polyurethane may be applied directly over most surfaces without primer. Apply a light coat at a thickness of 3 to 4 wet mils.

POROUS SURFACES

Most porous surfaces should have a sealer or filler to adequately eliminate potential pinholes prior to applying The Pittsburgh Paints Company BR Aliphatic Polyurethane.

1. Apply one coat of The Pittsburgh Paints Company BR Aliphatic Polyurethane (3– 4 mils wet per coat). Allow 4 hours between coats or when coating is tack free.

2. Any runs should be brushed or rolled out immediately before drying.
3. When dry, thickness should be 2-3 mils*

*For heavy duty applications such as warehouse floors with heavy forklift traffic, DFT thickness should be 3-4 mils.

Dry Time: 45 minutes - 1 hour at 75°F

IMPORTANT: Proper methods to protect from over spraying should be implemented. Atomized particles will adhere to most surfaces and are extremely difficult to remove. Temperature and humidity directly affect pot life and dry time. Conditions should be between 40 – 95 °F (5 – 35 °C) and humidity should not exceed 80%.

Re-Application

Apply a second coat within 72-hours for proper adhesion. If the first coat has dried longer than 72-hours, abrade the surface to promote adhesion of the second coat.

Precautions

For horizontal applications it is the responsibility of the contractor to use The Pittsburgh Paints Company's slip resist or appropriate non-slip additive depending on the project conditions.

Use material in a well-ventilated area. Protect the work of other trades. Protect shrubbery and other plants with drop cloths. Protect automobiles and all other areas not to be coated from overspray. Remove overspray from any windows, automobiles, metal, etc. as soon as possible should it occur. To prevent permanent staining, clean spills or leaks in a timely manner.

All surfaces to be coated should be clean of any dirt and grime, efflorescence, lime run, form oils and release agents, grease, mud, excess mortar, and mold and mildew, etc. All cracks should be pointed or caulked. All voids, bee-holes, masonry surface defects and openings such as conduits, pipes, drains, door frames, vents, air conditioner openings, electrical openings, control joints, or any dissimilar materials should be repaired using urethane or other approved patching.

Do not apply to surfaces if moisture content is greater than 25% as measured with an electronic moisture meter. Do not apply materials in climates where freezing temperatures have existed prior to application. Allow adequate time for surfaces to thaw. Establish that air, surface, and material temperatures are above 40°F (4.4°C) and at least 5°F above the dew point prior to painting. Do not apply at temperatures below 40°F when temperatures are expected to drop below 40°F within 48 hours of application. Do not

apply if rain, snow, or lower temperatures are expected within 48 hours. Do not apply if relative humidity is greater than 90%.

Store materials in a well-protected area at 45° - 90°F. Avoid freezing temperatures, direct sunlight, & moisture. Keep away from heat sources.

Safe Handling

Use product only with adequate ventilation and/or an appropriate cartridge type respirator. Avoid contact with skin and wear protective gloves. Read the Safety Data Sheet before using.

Test Data

TEST	RESULTS	TEST METHOD
Flash Point	>118°C (245 °F)	Tag closed cup
pH	Part A - N/A Part B - 9.2	--
Specific Gravity	1.05	--
Gloss	> 90 @ 16 °C (60°F)	Gloss meter
Gloss Loss	< 10%	ASTM D523
Color Loss	< 1.1%	ASTM D2244
Salt Spray	1500+ hours	ASTM B117
Humidity	1500+ hours	ASTM D2244
Abrasion	< 40mg	ASTM D4060
Hardness	> 2H	ASTM D3363
Adhesion	Pass	ASTM D2197
Flexibility	Pass	ASTM D2794
Surface Burning	Flame spread 0 Smoke development 0	ASTM E84
Odor	None	--
VOC (g/L, less water)	0	--
MEK Double Rub @ 50% solids	Passed 2,000 cycles	--

Technical Data

Solid by Weight (%)	Clear/Matte 60 (±2%)/58% Pigmented 66 (±2%)/64%	
Solid by Volume (%)	50%	
Dry Time	45 minutes – 1 hour	
Cure Time	5 – 7 days	
Pounds Per Gallon	Part A	9.2 lbs/gallon
	Part B Clear/Matte	8.7 lbs/gallon
	Part B Pigmented	10.8 lbs/gallon

Chemical Resistance

The Pittsburgh Paints Company BR Aliphatic Polyurethane provides excellent resistance to a wide range of chemicals and acids, including:

Ammonium Hydroxide	Hyjet #3	Toluene & Xylene
Potassium Hydroxide	Skydrol 500 A & B	Jet Fuel - Butyl Cellosolve
Sodium Hydroxide	Hydrochloric Acid 10%	Acetone - Cellosolve Acetate
Sodium Chloride	Phosphoric Acid 35%	Methyl Ethyl Ketone
Trisodium Phosphate	Sulfuric Acid 20%	Beer - Cola - Milk
Ethyl Alcohol	Acetic Acid 24%	Mustard - Bleach
Isopropyl Alcohol	Trichlorethylene	-
Methyl Alcohol	Perchlorethylene	-

Warranties

LIMITED WARRANTY: The Pittsburgh Paints Co. warrants performance of this product to its intended use if properly applied in accordance with the label directions and the specifications of the technical data sheet. This limited warranty extends only to the original purchaser of the product and is not transferable or assignable. THE PITTSBURGH PAINTS CO. MAKES NO OTHER EXPRESS WARRANTIES. IF THE PRODUCT FAILS TO CONFORM TO THIS LIMITED WARRANTY, THE PITTSBURGH PAINTS CO. WILL, AT YOUR OPTION, FURNISH REPLACEMENT PRODUCT OR REFUND THE PURCHASE PRICE. THIS LIMITED WARRANTY EXCLUDES (1) LABOR OR COSTS OF LABOR FOR THE APPLICATION OR REMOVAL OF ANY PRODUCT AND (2) ALL OTHER DIRECT, INDIRECT, INCIDENTAL, SPECIAL, OR CONSEQUENTIAL DAMAGES. This Limited Warranty gives you specific legal rights; you may have other rights which vary by state. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above exclusion or limitation may not apply to you. To make a claim under this Limited Warranty, supply dated proof of purchase to the store of purchase or to The Pittsburgh Paints Co., 400 Bertha Lamme Drive, Cranberry Township, PA 16066.

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