TECHNICAL DATASHEET – URA-SHIELD 5324

Revised: 05/2018

PRODUCT DESCRIPTION

A 100% solids, rapid cure, two component modified polyurethane. It forms a tough, flexible, impact resistant, seamless, "plastic-like" protection to a variety of substrates. Applied using heated plural component spray equipment.

FEATURES

- Low odor.
- Zero VOC.
- Fast curing for increased productivity.
- Tile-like finish for easy cleanability.
- Resists moisture and various chemicals.
- Meets NSF/ANSI Standard 51 for Food Equipment Materials.

RECOMMENDED USES

As a hard, durable, "plastic-like" protection finish over wood, insulation, dry wall, masonry, plastic and metal to provide an aesthetically pleasing smooth or textured appearance. Typically used for the protection of walls and ceilings in Food Processing and Agriculture facilities, Truck Trailer interiors, Urethane Foam, EPS, Phenolic Foam, and Polystyrene Foam. May be top-coated with Ultrachrome 452 for improved color retention in weathering exposures.

PRIMERS

STEEL: FUTURA-BOND 610 HS.
CONCRETE: POLYSPEC 100EX.
OTHER: Contact ITW Polymers Sealants North America, Inc. for recommendations.

TYPICAL PROPERTIES

SOLIDS BY VOLUME (ASTM D-1353)	99% ±1
VOLATILE ORGANIC COMPOUNDS	0.01 lb/gal (1.5 g/l)
THEORETICAL COVERAGE	1604 ft^2 @ 1 mil (3.8 m^2 @ 1 mm)
RECOMMEND DFT	30 – 100 mils (0.75 – 2.5 mm)
NUMBER OF COATS DO NOT EXCEED 30 MILS/COAT	1 to 3
MIX RATIO (BY VOLUME)	1"A" : 1"B"
FLASH POINT (PMCC)	>300°F (149°C)
SHELF LIFE @ 60-110°F (16-43°C)	12 months
COLOR	Tint Base*

** White. Black and Green colorant available and is added at time of application.*

SPECIFICATION DATA

ELONGATION – ASTM D 412	30% (min)
TENSILE STRENGTH – ASTM D 412	2400 psi
HARDNESS – ASTM D 2240	70 Shore "D"
FLEXURAL MODULUS - ASTM D 790	64,000
WATER ABSORPTION – ASTM 471 3 DAYS @ 75°F	1.1%

URA-SHIELD 5324

FAST-CURE AROMATIC URETHANE

ITW Polymers Sealants North America

ORDERING INFORMATION

PACKAGING	105 gal kits*
SHIPPING WEIGHT	10.2 lb/gal (4.6 kg/gal)

**Part A = 55 gallons, Part B = 50 gallons, Colorant = 5 gallons (colorant added to part "B" at time of application).*

SURFACE PREPARATION

Remove all oil, grease or other contaminants from the surface to be coated in accordance with SSPC-SP 1.

STEEL: Apply over clean, dry, properly applied FUTURA-BOND 610 HS or other recommended primer.

CONCRETE: Apply over clean, dry, properly applied POLYSPEC 100EX or other recommended primer. Note: Rough concrete may require surfacing with FUTURA-BOND 320 Gel prior to the application of the POLYSPEC 100EX.

OTHER: Contact ITW Polymers Sealants North America, Inc. for specific surface preparation and primer recommendations.

MIXING

Power mix both the "B" component and the colorant to a uniform consistency then add the 5 gallons of colorant to the part "B" component and power mix to a uniform consistency, "A" component does not require mixing.

DO NOT APPLY THE MATERIAL IF THE COLORANT HAS NOT BEEN ADDED TO THE PART "B"
DO NOT BATCH MIX.

THINNING: DO NOT THIN.

POT LIFE

MATERIAL TEMPERATURE	TIME
75°F (24°C)	< 15 seconds

APPLICATION CONDITIONS

	NORMAL	MINIMUM	MAXIMUM
MATERIAL*	135-150°F (57-65°C)	135°F (57°C)	170°F (77°C)
SURFACE	75-90°F (24-32°C)	45°F (7°C)	110°F (43°C)
AMBIENT	75-90°F (24-32°C)	45°F (7°C)	110°F (43°C)
HUMIDITY	30-50%	0%	85%

** Materials must be preheated to 75-90°F (24-32°C) min prior to use. Surface temperature must be 5°F (3°C) above the dew point.*

APPLICATION EQUIPMENT

Heated Plural Component Airless (only) Applicator training is required and spray equipment must be approved by ITW Polymers Sealants North America, Inc. Technical Service.

- 1:1 ratio capable of producing a minimum delivery rate of 1¼ gallons per minute at a tip pressure of 2500-3000 psi.
- Proportioner heaters and heated hose capable of maintaining material temperatures of 135-150°F (57-65°C) at the spray tip.
- Drum heaters capable of maintaining material temperatures of 75-90°F (24-32°C) during application.
- 2:1 ratio transfer pumps minimum.
- Contact ITW Polymers Sealants North America, Inc. for specific information.

CURE TIME

These times are based on a 30-50% RH. Excessive film thickness, cooler temperatures or inadequate ventilation will require longer cure times and could result in premature failure.

SURFACE TEMPERATURE

	50-69°F (10-21°C)	70-89°F (21-32°C)	90-110°F (32-43°C)
SURFACE DRY	3-5 minutes	2-2 ½ minutes	1-1 ½ minutes
HARD FILM	25 minutes	15 minutes	10 minutes
RECOAT (MIN)	5 minutes	5 minutes	5 minutes
RECOAT (MAX)	36 hours	24 hours	12 hours
FULL CURE	7 days	5 days	3 days

- If the material has exceeded its maximum recoat time by less than 24 hours wipe with MEK and recoat within 10 minutes.
- If the maximum recoat time has been exceeded by more than 24 hours, contact ITW Polymers Sealants North America, Inc. for recommended recoat procedures.

CLEAN UP

Consult ITW Polymers Sealants North America, Inc. "Plural Component Equipment Guide" for specific information.

SAFETY INFORMATION

- Read the Safety Data Sheet (SDS) and
- container labels for detailed health and safety information.
- Do not apply material in enclosed areas without adequate air exchange and ventilation.
- All application personnel must use fresh air respirators or fresh air hoods.
- Wear protective clothing, gloves and eye protection.
- Breathing fumes or contact with the skin may cause severe allergic reactions.

This product is intended for industrial use by properly trained professional applicators only.

STORAGE CONDITIONS

- Protect drums from moisture contamination. Store drums and /or pails in a dry location at 60-90°F (16-32°C).
- Drums **must** be kept sealed at all times with a positive feed dry air, nitrogen blanket or desiccant cartridge system.
- Materials **must** be kept above 50°F (10°C).

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