

PRODUCT DESCRIPTION

APF Polyurea 5100 is a two-component, high-solids, aliphatic Polyurea/Polyaspartic hybrid that provides the desirable properties of polyester-polyurethane materials with a shorter cure time and reduced film thickness limitations.

APF Polyurea 5100 is a low viscosity, easy to apply product that results in a very high gloss finish that is both hard and abrasion-resistant. This material releases soil easily and has excellent resistance to a broad range of chemicals. Unlike conventional polyurea materials, APF Polyurea 5100 has adequate working time to be applied by brush and roller. APF Polyurea 5100 is a very rapid curing product able to be returned to full service in 24 hours. An integral UV stabilizer package is incorporated to ensure long-term gloss retention and resistance to yellowing.

Developed as a high-performance coating for various protective coatings and seamless flooring applications, APF Polyurea 5100 is ideally suited for use as a finish coat in color chip and color quartz flooring systems and various types of decorative architectural concrete applications.

USES

- Decorative Quartz and Vinyl Flake Mosaic
- Clean Rooms, Hospital & Healthcare
- Restaurants-Grocery-Food Service
- Automotive
- Aviation
- Pharmaceutical

ADVANTAGES

- Excellent resistance to inorganic acids, 98% sulfuric acid
- Excellent resistance to elevated temperatures (<175°F/80°C)
- Will cure down to 40°F (4.5°C)

CHEMICAL RESISTANCE

Refer to APF Chemical Resistance Chart

COLORS

Only available in clear

TECHNICAL DATA

Mixing Ratio by Volume	1A : 1B
VOC	1.3 g/l
Solids Content, by Volume	75%
Hardness, Pendulum	172
Gloss (60°)	95
Bond Strength to Concrete (ASTM D-4541)	>350 psi, concrete fails
Cure Time (77°F)	
	Dry to Touch ~3Hour
	Light Traffic ~12 Hours
	Vehicle Traffic ~5 Days
	Full Cure/Full Chemical Resistance ~7 Days

Cure times are dependent on temperature and humidity

PACKAGING

Supplied in complete A+B 1.0 gallon (3.7 L), 10 gallon (37.8 L).
Mix ratio 1A : 1B

SURFACE PREPARATION

Concrete must be cured for at least 30 days and be clean, structurally sound, and free of wax, loose paint or curing compounds. Concrete should be shot blasted to achieve a surface minimum texture of ICRI 3 - 4. Refer to ICRI Technical Guidelines 310-330 *Selecting and Specifying Concrete Surface Preparation for Sealers, Coatings, Polymer Overlays, and Concrete Repair*. Acid etching is not recommended and will void Manufacturer's warranty. Carefully follow the guidelines listed in the Arizona Polymer Flooring published application instructions available at www.apfepoxy.com. Vacuum prepared concrete surface to remove all dust. Previously coated surfaces that are soundly adhered must be mechanically cleaned and abraded to achieve uniformly gloss-free, open texture.

CONCRETE MOISTURE

Test for concrete moisture in accordance with ASTM F2170-19. If moisture is indicated to be in excess of 85%, apply APF Vapor-Solve® system in accordance with the published technical data sheet. Consult APF Technical Service for further information.

MIXING

APF Polyurea 5100 is packaged in premeasured and bulk units. Proper proportioning and homogenization are critical for success. Mixing ratio is 1A : 1B. Premix both components for 3 minutes prior to blending. Do not attempt to hand mix. Be sure to move the drill around the mixing container scraping the sidewalls and bottom.

Add component B to component A and mix with medium speed drill mixer for three [3] minutes. Distribute material immediately after complete mixing.

APPLICATION

APF Polyurea 5100 is applied by roller, brush and squeegee. For detailed installation instructions, see Arizona Polymer Flooring application manual.

Polyurea 5100 is a very reactive material and requires special application techniques. It may be brushed, rolled, or sprayed using plural component spray equipment. Easy application is accomplished by pouring the freshly mixed product on the floor, spreading to the desired thickness with a rubber squeegee, and finish rolling immediately with an 18-inch roller. The mechanic rolling the material should wear spiked shoes to walk on the wet material. Because the material sets quickly, change roller covers every hour.

APPLICATION, cont.

Mixed material must be spread immediately after mixing. On large jobs, be sure to have enough workforce to maintain a wet edge. Do not apply at more than 10 mils. **Product applied at greater than 16 mils (<100 ft²/Gal) will generate excessive CO₂ and result in surface defects.**

LIMITATIONS

- Not suitable for constant temperature exposure over 175°F (80°C)
- Prior to application, measure and confirm that ambient temperature and humidity conditions are at least 5°F over dew point.
- Do not exceed 10 mils wet film thickness. Surface defects will occur.

SHELF LIFE

One [1] year from date of manufacture, in original unopened container. Store away from heat sources between 50°F and 85°F (10°C – 30°C).

HANDLING & SAFETY

Use only with adequate ventilation. Appropriate cartridge-type respirator must be used during application in confined areas. Avoid contact with skin; wear protective gloves. User must read and understand Safety Data Sheet before using. APF Safety Data Sheets are available at www.apfepoxy.com

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STANDARD WARRANTY STATEMENT

ICP BUILDING SOLUTIONS GROUP, the owner of Arizona Polymer Flooring, warrants that the product is produced within specifications and is free from defect. No warranty shall be in effect until ICP Building Solutions Group Terms and Conditions of Sales are met, including payment and cooperative promotional considerations. ICP Building Solutions Group warrants that the covered product is free of defect and suitable for the specified purpose for a period of one (1) year from the date of shipment, provided the product is installed within its published shelf life, in strict conformance with specifications, and/or written project-specific installation guidance from authorized representation. ICP Building Solutions Group warrants only when product is handled, stored, mixed and applied in accordance with published recommendations. It is purchaser responsibility to initiate any claim against this warranty within a reasonable time. If determined by ICP that the product does not meet this warranty, the liability of ICP Building Solutions Group shall be limited to refund of the purchase price or provision of replacement product, neither needing to exceed the affected area as determined by a person authorized to perform technical representation for ICP Building Solutions Group. To obtain a replacement or refund the customer must provide written notice containing full details of the non-conformity suspected. The purchaser, owner or their representative shall notify ICP Building Solutions Group, in writing, within five (5) working days concerning any potential defect, or as needed before conditions deteriorate and increase repair costs. ICP Building Solutions Group reserves the right to inspect the non-conforming material prior to replacement. ICP Building Solutions Group may in its discretion refund the purchase price received by ICP Building Solutions Group in lieu of replacing the material. Except for the expressed warranty stated above, there are no other warranties, expressed or implied, including without limitation, any implied warranty of merchantability or fitness for purpose. ICP Building Solutions Group's obligation shall not extend beyond the obligations expressly undertaken above and ICP Building Solutions Group shall have no liability or responsibility to purchaser or any third party for any loss, cost, expense, damage or liability, whether direct or indirect, or for incidental or consequential damages. No customer, distributor, or representative of ICP Building Solutions Group is authorized to change or modify the published data sheets or this warranty in any way. No one is authorized to make oral warranties on behalf of ICP Building Solutions.