



SUNBELT FLOORING, INC.

SUNBELT 1100®

Decorative Colored Flake Epoxy Floor

PRODUCT DESCRIPTION

Sunbelt 1100® is a nominal 1/8” to 1/4” thick durable flooring system made of colored macro or micro flakes embedded in 100% solids, two component clear epoxy matrix. It’s designed for use as a decorative, slip-resistant surface for commercial environments. The troweled base can be applied over concrete or wood substrates and provides superior impact resistance. The colored macro or micro flakes broadcast layer results in an attractive floor surface that can be textured for safety and finished with a clear gloss epoxy topcoat. Sunbelt 1100® can be finished with optional topcoats that include UV stable aliphatic or waterborne urethane and extreme chemical and heat-resistant novalac. The Sunbelt 1100® system consists of the following:

PRIMER: A two-component epoxy primer. Other primers can be substituted depending on application. Primer may not be necessary depending on substrate condition.

BASE COAT: A three-component, troweled polymer composite consisting of epoxy resin, curing agent and a choice of colored macro or micro flakes.

FLAKES: Brightly colored macro or micro broadcast flakes.

TOP COATS: A two-component, high performance clear epoxy sealer.

SYSTEM OPTIONS

Waterproofing

In above grade applications or over wood, the use of Sunbelt 1200 under the Sunbelt 1100® system is recommended. Sunbelt 1200 is a urethane elastomeric reinforced with fiberglass screen mesh installed at all joints and provides a complete waterproof and flexible membrane system.

Cove Base

Installed to provide an integral seal at the joint between the floor and the wall. Cove bases are generally 4” to 6” in height and have a 5/8” radius for ease in cleaning.

Antimicrobial Additive

Maintains a broad spectrum efficacy against most known bacteria, fungi, and some viral infections

Texture

Sunbelt 1100® offers 3 categories of finish textures. Smooth texture is our smoothest finish used under equipment. Light-medium texture provides a slip resistant finish and Medium texture is our highest level of slip resistance.

COMMON APPLICATIONS

Suitable for laboratories, clean rooms, commercial kitchens and restaurants, food processing areas, animal rooms, locker rooms, restrooms, prisons, manufacturing, institutional and industrial environments.

SYSTEM PERFORMANCE PROPERTIES

Tensile Strength	<i>ASTM C-307</i>	28 days – 2745 psi
Absorption	<i>ASTM C-413</i>	7 days – 0.07%
Coefficient of Thermal Expansion	<i>ASTM C-513</i>	3.0 x 10 ⁻⁵ in/in/°F
Compressive Strength	<i>ASTM C-579</i>	7days – 10,718 psi
Modulus of Elasticity	<i>ASTM C-580</i>	7 days – 2.2 x 10 ⁶ psi
Static Coefficient of Friction	<i>ASTM C-1028</i>	Dry – 1.05 Wet – 0.94
Flammability	<i>ASTM D-635</i>	Self-Extinguishing
Flexural Strength	<i>ASTM D-790</i>	4,658 psi
Hardness	<i>ASTM D-2240</i>	87
Impact Resistance	<i>ASTM D-2794</i>	160 inch-pounds
Abrasion Resistance	ASTM D-4060	Wear Index 30 Weight Loss 0.015 grams
Bond Strength	ASTM D-7234	>376 psi (break in concrete)
Heat Resistance		No deformation, degradation or peeling. Cycle – continuous exposure @ 140°F for 18 hours, then placed in laboratory temperature for 6 hours.
Chemical Resistance		See Chemical Resistance Chart
APPLICATION PROPERTIES		
Mix Ratio		2A : 1B by volume
Gel Time (minutes)		35-45 @ 75°F
Application Temperature		50°F Min / 90°F Max
Cure Rate		12 hours for foot traffic, 24 hours for normal operations.
V.O.C.		46 g/l
Note* <i>The above physical properties were measured in accordance with the referenced standards. Samples of the actual floor system, including epoxy and aggregate were used as test specimens. All sample testing is conducted in a laboratory environment.</i>		

ADVANTAGES AND LIMITATIONS

Advantages

- Produces a rapidly-installed, decorative seamless floor at moderate cost.
- Excellent compressive, flexural and tensile strengths.
- Excellent impact and abrasion resistance.
- Produces a smooth, seamless colorfast finish.
- Eliminates potential trowel marks and uneven finishes.
- Low maintenance makes cleaning easy.
- Available in 8 standard colors (custom colors available at an up-charge)

Limitations

- Moisture vapor emission rates in excess of 3.0 lbs./1000 sq/ft per 24 hour period, or an RH in excess of 78% may result in delamination, discoloration or improper curing without proper treatment prior to installation of the flooring installation.
- Substrate temperature must be a minimum of 50°F.
- If substrate cracks, Sunbelt 1100® may reflect cracks to some degree.
- Vapor control primers, sloping, smoothing or leveling compounds, crack repair or isolation, waterproof membranes or other supplementary items may be required for proper installation at an additional cost.

SUBSTATE PREPARATION

Proper preparation is critical to ensure a successful bond. New concrete should be cured for a minimum of 28 days and the concrete compressive strength must be a minimum of 3000 psi. The substrate must be free from surface contaminants, grease, wax, fats, oils, dirt, foreign or loose materials, delaminated coatings and laitance. The surface must be sound. Unbonded cement particles must be removed by mechanical methods such as abrasive blasting or scarifying. The surface must show open pores throughout and have a sandpaper texture.

SYSTEM APPLICATION

Primer

Use Sunbelt 1100® A & B liquid components as primer. Use a clean bucket and mix 2 parts of A to 1 part of B by volume. Stir with a mechanical agitator for 1-2 minutes. Distribute mixed material evenly over the floor surface using rollers or squeegees. Spread rate will vary from 70 to 150 sq/ft per gallon depending on surface. Do not apply over standing water or let primer set before applying the base coat.

Basecoat

Use a clean container and mix Sunbelt 1100® liquid components at a ratio to 2 parts A to 1 part B by volume. To 3 weight equivalent of mixed liquid components add approx.. 1 weight equivalent of colored macro or micro flakes. Mix all components for 2-3 minutes or until uniformly mixed. Transfer to installation area slurry trowel to a thickness of 1/8" to 3/16" . Back roll with roller and spikes. Then broadcast flakes until refusal and allow to cure overnight.

Top Coats / Anti-skid

Sweep and vacuum loose quartz from basecoat prior to installing the top coats. To seal the epoxy/colored flakes composite for easier cleaning and to assure a non-skid property, trowel apply a seal coat using the Sunbelt 1100® liquid components. Mix in the same manner as described in the primer step. Apply the seal coat (aka flood coat) similarly to the 1st coat. Application rate is approx. 125 sq./ft. per gallon. During the seal coat process, broadcast colored macro or micro flakes for anti-skid effect. Other aggregates and spread rates can be used to achieve a more aggressive anti-skid for demanding environments.

CHEMICAL RESISTANCE

See the Chemical Resistance Chart for chemical resistance of the Sunbelt 1100® system.

SPECIFICATION ASSISTANCE

Consult Sunbelt Flooring, Inc. for specification assistance, literature, detailing, samples etc. Sunbelt Flooring Inc. is available to assist you at any time. CALL (877) 870-1090.

LIMITED WARRANTY

The Sunbelt 1100® system is approved for installation only by a Sunbelt Flooring Inc. company trained employee. Sunbelt Flooring Inc. does not resale their floor systems to outside installation crews nor does it allow other companies to purchase or install their flooring systems.

Sunbelt Flooring Inc. warrants for a period of 1 year that it's materials are free from manufacturing defect and installation will be in conformity with published specifications.



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