



The Chemical Company

PRODUCT DATA

9 09 67 23 Resinous Flooring

SELBACLAD 400

Trowel-applied epoxy underlayment

Description

Selbaclad 400 is a two-component 100% solids epoxy resin mixed with properly graded aggregates. It is used as an underlayment for epoxy flooring systems or as an economical, highly impact-resistant finished floor.

Yield

Primer: 250 ft²/gallon (6.25 m²/L)

Base coat: 48 ft² (4.5 m²)/batch

Yield: 1 ft³ (0.028 m³)/batch

All coverage rates are approximate. Coverage rates will vary with the desired texture and the property of the concrete.

Packaging

1 gallon (3.79 L) cans

5 gallon (18.95 L) pails

55 gallon (208 L) drums available by special order

Aggregate sold in bags

Color

12 standard colors

Custom colors are subject to minimum quantities, increased manufacturing lead times, and premium pricing.

Samples of this product may be obtained from your local Selby™ representative.

Features

- Moisture resistant
- High bond strength
- Nonporous resin matrix
- Fast cure rate
- 100% solids
- Good abrasion resistance
- Special blend of aggregates
- Epoxy chemistry

Benefits

- Ideal for wet spaces
- Excellent bond to concrete
- Provides long-term protection
- Reduces down time
- Low odor
- Longer wear
- Good handling characteristics
- Good chemical resistance

Shelf Life

2 years when properly stored.

Storage

Store and transport in unopened containers in a clean, dry area. Protect from freezing.

Where to Use

APPLICATION

- Where heavy traffic conditions exist
- As a concrete resurfacer
- As an underlayment for epoxy floor systems
- To overcoat damaged concrete
- Sloping floors to drains
- Patching operations before applying Selby™ epoxy flooring
- Beverage plants
- Dairies
- Breweries

LOCATION

- Interior only

SUBSTRATE

- Over new existing concrete surfaces and toppings

How to Apply

Selby™ systems are installed by approved contracting firms. Selby™ is a globally branded product line with industry synergies around the world.

The following is only a summary of the installation techniques used by Selby™ approved contractors.

Surface Preparation

1. Floors must be structurally sound and fully cured a minimum of 28 days. Test floor for vapor drive in accordance with ASTM D 4263.
2. Repair concrete as necessary.
3. Use a commercial degreaser to clean floors of oil, grease, and other bond-inhibiting materials.
4. Remove curing and parting compounds and other surface hardeners and floor coatings in accordance with the manufacturer's instructions.
5. Mechanical surface profiling is the method of surface penetration for both new and existing floors. Mechanically profile the floor to a minimum CSP 4 as described by the International Concrete Repair Institute.

SELBY

Technical Data

Composition

Selbaclad 400 is a 100% solids epoxy resin mixed with properly graded aggregates.

Typical Properties

PROPERTY	VALUE
Weight , lbs/ft ² (kg/m ²), at 1/4" (6 mm) thickness	2.4 (11.7)

Test Data

PROPERTY	RESULTS	TEST METHODS
Compression strength , psi (MPa)	12,000 (82.7)	ASTM C 579
Tensile strength , psi (MPa)	8,000 (55.1)	ASTM D 638
Moisture absorption , %	0.15	MIL-D-3135
Rate of burning	Self-extinguishing	ASTM D 635
Oil resistance , %	0.20	MIL-D-3135
Shock resistance	No signs of chipping, cracking, or detachment	MIL-D-3135 (steel plate)
Adhesive strength , psi (MPa)	500 (3.4)	MIL-D-3135

Unless otherwise noted, test samples were cured 7 days at 73° F (23° C).

Test results are averages obtained under laboratory conditions. Reasonable variations can be expected.

Chemical Resistance

Full chemical resistance is achieved after curing for 7 days. For resistance to a specific chemical compound, consult the Selby™ Chemical Resistance Guideline.

6. Apply a 5 by 5 ft (1.52 by 1.52 m) test in an inconspicuous area that meets the owner's expectations for appearance, slip resistance, and performance.

Mixing

1. Mix the components for this product in the following ratios to ensure uniform consistency.

APPLICATION	COMPONENTS	MIX RATIO
Primer	A755 / B725	2 to 1
Base coat	A755 tinted / B725 / EMR or EMR PT aggregate	2 to 1 to aggregate*

* Mix in aggregate at the rate of 2 bags for every 1-1/2 gallons of mixed resin.

2. Properly mix each component separately before mixing together to ensure uniform consistency.
3. Combine Parts A and B in a suitably sized container. Use the proper ratios of A and B; scrape the sides of the containers to ensure a complete reaction.
4. Mix properly for 3 minutes with a slow-speed drill and Jiffy-style mixing paddle at 350 rpms. Keep the paddle below the surface to avoid entrapping air. Do not mix by hand.

Priming

Apply the mixed primer to the properly prepared concrete at 250 ft²/gallon at 6 – 8 mils. The base coat can be applied over the wet primer coat.

Application

HAND TROWELING

Add 100 lbs of EMR aggregate to each 1-1/2 gallon batch of mixed Part A and B. Apply at approximately 48 ft² (4.5 m²)/batch to a 1/4" (6 mm) nominal thickness or to the specified depth.

POWER TROWELING

Repeat the steps above under hand troweling, but use EMR PT (power-trowel) grade aggregate instead.

TOPCOATING

When Selbaclad 400 is used as an underlayment, cover it with the desired finish, such as ceramic tile, epoxy terrazzo, or various polymeric deck coverings.

NOTE: Various curing agents can be used to achieve desired properties; see the 700 Series data guide.

Drying Time

Primer coat: 12 – 24 hours

Base coat: 12 – 24 hours

Recoat window: 12 – 24 hours

Drying times assume 70° F (21° C) and 50% relative humidity.

Maintenance

Regular cleaning and maintenance will prolong the life of all polymer flooring systems, enhance their appearance, and reduce any tendency to retain dirt.

Consider using Selbaclad 415 or Selbaclad 425 when cleanability is of particular importance.

For Best Performance

- Precondition this product to 70° F (21° C) for 24 hours before using.
- Be certain to use the correct grade of sand before applying (EMR or EMR PT).
- Do not expose Selbaclad 400 to any chemicals until fully cured (7 days).
- Use an effective moisture barrier for substrates on or below grade; if not present, contact your flooring specialist for options.
- Do not apply at temperatures below 50° F (10° C) or above 85° F (30° C) or if the relative humidity is above 85%.
- The architect and owner should address joint details with the flooring contractor before the job starts.
- BASF representatives and flooring specialists are available to assist you in the selection of the proper coating system. Call 1-800-243-6739 for in-house and field technical assistance.
- Make certain the most current versions of product data sheet and MSDS are being used; call Customer Service (1-800-433-9517) to verify the most current version.
- Proper application is the responsibility of the user. Field visits by BASF personnel are for the purpose of making technical recommendations only and not for supervising or providing quality control on the jobsite.

Health, Safety and Environmental

Read, understand and follow Material Safety Data Sheets and product labels for all components of this flooring system prior to use. The MSDS can be obtained by searching for them on www.BuildingSystems.BASF.com, e-mailing your request to basfbcst@basf.com or calling 800/433-9517. Use only as directed.

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