

PRODUCT DATA

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**Seamless Quartz
Flooring**

SELBATWEDE 41

Decorative epoxy floor system

Description

Selbatwede 41 consists of a two-component 100% solids epoxy-resin binder with colored quartz aggregate. Can be used as a binder in slurry/broadcast system. The colored quartz imparts a slip-resistant surface that can be varied by the applicator. It is applied over properly prepared surfaces to a thickness of 1/8" (3 mm) to 3/16" (5 mm).

Yield

First receiving coat: 160 ft²/gallon (4 m²/L)

Second receiving coat: 100 ft²/gallon (2.5 m²/L)

Grout coat: 80 – 100 ft²/gallon (2 – 2.5 m²/L)

Topcoat: 250 ft²/gallon (6.25 m²/L)

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

Packaging

Epoxy coatings:

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

N300 CR polyurethane topcoat:

1 gallon (3.79 L) cans

5 gallon (18.95 L) pails

Features

- Slurry/broadcast
- Seed-roll application
- Clear gloss coat over a multicolored quartz coat
- Temperature in-service range of 0 – 170° F (-18 – 76° C)
- 100% solids epoxy
- Fire retardant
- Broadcast finish
- Compatible system
- Colored quartz finish
- Epoxy resins

Benefits

- Designed for ease of application
- Low installed cost
- Unique decorative appearance
- Ideal for hot and cold environments
- VOC compliant; low odor
- Self-extinguishing
- Texture can be varied to meet customer's needs
- Can be used with Selby™ membrane systems
- Available in standard and custom blends
- Good chemical resistance

Color

12 standard quartz blends.*

Custom blends are available on request; custom orders are subject to minimum quantities, increased manufacturing lead-times, and premium pricing. Refer to the Selby™ Color Selector Guide for more information.

*Color blends exhibit normal industry variations.

Shelf Life

Epoxy coatings: 2 years when properly stored.

N300 CR polyurethane topcoat: 1 year when properly stored.

Storage

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

Where to Use

APPLICATION

- Light- to medium-duty traffic areas
- Commercial applications
- Corridors
- Restrooms and showers
- Locker rooms
- Auditoriums
- Cafeterias
- Laboratories

LOCATION

- Interior

SUBSTRATE

- Apply over new and existing concrete and toppings

Technical Data

Composition

Selbatwede 41 is a 100% solids epoxy-resin binder with colored quartz aggregate.

Typical Properties

PROPERTY	VALUE
Weight , lbs/ft ² (kg/m ²) At 1/8" (3 mm)	4.98 (24.3)

Test Data

PROPERTY	RESULTS	TEST METHODS
Impact strength , in-lbs	60	ASTM 2794
Compressive strength , psi(MPa)		
System	12,900(88.9)	ASTM C 579
Resin	12,000(82.7)	ASTM D 695
System	10,200(70.3)	ASTM C 109
Tensile strength , psi(MPa)		ASTM D 638
System	1,160(8.0)	
Resin	7,960(54.8)	
Tensile elongation , %	3.2	
Flexural strength , psi(MPa)		ASTM D 790
System	4,600(31.7)	
Polymer	14,100(97.1)	
Flexural modulus (resin)	398,000	
Surface flammability		ASTM E 162
Flame spread index	9.29	
Smoke deposit, mg/ms	0.1	
NBS Class	1	
Rate of burning	Self extinguishing	ASTM D 635
Mandrel bend	No cracking	ASTM D 522
Abrasion resistance , mg loss; CS-17 Wheel, 1,000 g load 1,000 cycles	< 0.078	ASTM D 4060
Indentation , in		MIL-D-24613
Initial	0.0016	
24 hr. residual	0.0008	
Impact resistance	No chipping, cracking, or delamination	MIL-D-24613
Fire resistance	Fire retardant	MIL-D-24613
Adhesive strength , psi(MPa)	> 500 (> 3.4) 100% concrete failure	ASTM D 4541
Coefficient of friction		ASTM D 2047
Dry	> 0.7	
Wet	> 1.20	
Oil absorption	Nil	MIL-D-24613
Water absorption	Nil	MIL-D-24613
Thermal stability	No de-bonding modified	ASTM C 844

Unless otherwise noted, test samples were cured 7 days at 73° F (23° C) and 50% relative humidity.
Test Results are typical values obtained under laboratory conditions. Reasonable variations can be expected.

Chemical Resistance

In accordance with ASTM D 1308, Selbatwede 41 with the standard A750/B725 finish coat will withstand exposure for up to 7 days at 72° F (22° C) for the following chemicals.

- Dilute mineral acids, including hydrochloric (< 30%), phosphoric (< 20%), and sulfuric (< 30%)
- Alkalis, including potassium hydroxide to a 50% concentration
- Some dilute organic acids such as acetic (30%), formic, citric, and uric
- Fats, oils, and sugars
- Mineral oils, diesel fuel, kerosene, and gasoline
- Some organic solvents, including aliphatic hydrocarbons

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

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 preparation for both new and existing floors. Mechanically profile the floor to CSP 3 (approximating medium-grit sandpaper) as described by the International Concrete Repair Institute. Do not use acid etching for surface preparation. Do not use any method that will fracture the concrete.
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:

APPLICATION	COMPONENTS	MIX RATIO
First receiving coat	A750 / B725 / Broadcast Granules	2 to 1
Second receiving coat	A750 / B725 / Broadcast Granules	2 to 1
Grout coat	A750 / B725	2 to 1
Topcoat	A750 / B725	2 to 1

2. Properly mix each component separately before mixing together to ensure a 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.

Application

1. Install the cove base, as required.
2. Apply slurry/broadcast systems (see Selbaclad SLB for coverage rates) or continue receiving coat of epoxy resin at approximately 160 ft²/gallon (4 m²/L).
3. Broadcast the Selbatwede 41 aggregate by hand or by mechanical blower into the wet receiving coat. Use 1/3 lb/ft² or as required. Make certain the entire floor is saturated with aggregate, exhibiting a dry appearance.
4. Allow to cure, usually overnight; sweep, stone, and vacuum the excess aggregate.
5. Apply the second receiving coat of epoxy at approximately 100 ft²/gallon (2.5 m²/L). Broadcast the Selbatwede 41 aggregate by hand or by mechanical blower into the wet receiving coat. Use 1/2 lb/ft² or as required. Make certain the entire floor is saturated with aggregate, exhibiting a dry appearance.
6. Allow to cure, usually overnight; sweep, stone, and vacuum the excess aggregate.
7. Apply the clear grout coat at 80 – 100 ft²/gallon (2 – 2.5 m²/L) by squeegee; lightly backroll with a thick-nap roller. Allow to cure 8 – 10 hours.
8. Apply the clear finish coat at 250 ft²/gallon (6.25 m²/L) to achieve the desired texture or smoothness. For increased abrasion resistance and UV stability, substitute N300 CR for the finish coat.
9. Various curing agents can be used to achieve desired application properties; refer to the Selby™ 700 Series product data sheet.

Maintenance

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

For Best Performance

- Do not expose to chemicals until fully cured (7 days).
- Precondition this product to 70° F (21° C) for 24 hours before using.
- Do not exceed the recommended recoat window of 24 hours; if in doubt, contact your BASF flooring specialist.
- Use an effective moisture barrier for substrates on or below grade; if not present, call your local BASF representative or flooring specialist for options.
- For increased abrasion resistance and UV stability, substitute N30OCR for the finish coat.
- Install these products at a substrate temperature of 50 to 85° F (10° to 30° C).
- The in-service temperature range is 0 to 170° F (-18 to 76° C).
- Selbatwede 41 will follow the contour of the substrate; where this may be a concern, consider using Selby™ underlayments, Selbatwede HD, or Selbatwede 71.
- The architect and owner should address joint details with the contractor before the job starts.
- BASF representatives and flooring specialists can help you select the proper flooring system. Call 1-800-433-6739 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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