

PRODUCT DATA

9 09 67 26 **Seamless Quartz Flooring**

# SELBATWEDE 71

## Trowel-applied decorative epoxy floor system

### Description

Selbatwede 71 is a 100% solids trowel-applied epoxy with colored quartz aggregates. The trowel application will impart more color depth and stability, a smoother finish, and greater durability than the Selbatwede 41 system. It is applied over properly primed surfaces at a depth of 1/4" (6 mm).

### Yield

Primer: 250 ft<sup>2</sup>/gallon (6.25 m<sup>2</sup>/L)  
 Base coat: 63 ft<sup>2</sup> (5.86 m<sup>2</sup>)/batch  
 Grout coat: 100 ft<sup>2</sup>/gallon (9.3 m<sup>2</sup>/L)  
 Topcoat: 155 ft<sup>2</sup>/gallon (3.84 m<sup>2</sup>/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  
 N300CR polyurethane topcoat:  
 1 gallon (3.79 L) cans  
 5 gallon (18.95 L) pails

### Features

- 1/4" (6 mm) trowel base
- Large, multi-colored quartz aggregate
- Epoxy resin
- Fire retardant
- 100% solids
- Trowel-applied
- Large colored quartz
- Compatibility

### Benefits

- Will accommodate damaged surfaces; greater impact resistance and extended service life
- A stratified decorative appearance
- Good chemical resistance
- Self-extinguishing
- VOC compliant; low odor
- Can utilize terrazzo strips to create decorative patterns
- Available in standard and custom blends
- Can be used with Selby™ membrane systems

### Color

12 standard quartz blends (color blends exhibit normal industry variations.)  
 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.

### Shelf Life

Epoxy coatings: 2 years  
 N300CR polyurethane topcoat: 1 year

### Storage

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

### Where to Use

#### APPLICATION

- Medium- to heavy-duty traffic areas requiring a decorative finish
- Where aesthetics is a primary concern
- Commercial and industrial applications

- Lobbies
- Corridors
- Auditoriums
- Cafeterias
- Research laboratories
- Classrooms
- Restrooms

#### LOCATION

- Interior

#### SUBSTRATE

- New and existing concrete floors 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.

## Technical Data

### Composition

Selbatwede 71 is composed of a 100% solids epoxy-resin binder with colored quartz aggregate.

### Typical Properties

PROPERTY	VALUE
Weight, lbs/ft <sup>2</sup> (kg/m <sup>2</sup> ), at 1/8" (3 mm)	4.98 (24.3)

### Test Data

PROPERTY	RESULTS	TEST METHODS
<b>Impact strength</b> , in-lbs	60	ASTM 2794
<b>Compressive strength</b> , psi (MPa)	12,900 (88.5)	ASTM C 579
<b>Tensile strength</b> , psi (MPa)	1,160 (8.0)	ASTM D 638
<b>Tensile elongation</b> , %	3.2	
<b>Flexural strength</b> , psi (MPa)	4,600 (31.5)	ASTM D 790
<b>Flexural modulus</b> (resin)	398,000	
<b>Surface flammability</b>		ASTM E 162
Flame spread index	9.29	
Smoke deposit, mg/ms	0.1	
NBS class	1	
<b>Rate of burning</b>	Self-extinguishing	ASTM D 635
<b>Mandrel bend</b>	No cracking	ASTM D 522
<b>Abrasion resistance</b> , mg loss; CS-17 wheel, 1,000 g load 1,000 cycles,	< 0.078	ASTM D 4060
<b>Indentation</b> , in		MIL-D-24613
Initial	0.0016	
24 hr residual	0.0008	
<b>Impact resistance</b>	No chipping, cracking, or delamination	MIL-D-24613
<b>Fire resistance</b>	Fire retardant	MIL-D-24613
<b>Adhesive strength</b> , psi (MPa)	> 7,500 (51.7) 100% concrete failure	ASTM D 4541
<b>Coefficient of friction</b>		ASTM D 2047
Dry	> 1.20	
Wet	> 0.47	
<b>Oil absorption</b>	Nil	MIL-D-24613
<b>Water absorption</b>	Nil	MIL-D-24613
<b>Thermal stability</b>	No de-bonding	ASTM C 844, modified

Unless otherwise noted, test samples were cured 7 days at 73° F (23° C) and 50% relative humidity.

### Chemical Resistance

In accordance with ASTM D 1308, Selbatwede 71 with the standard A750 / B725 finishing coat will resist 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.

### 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.
6. Apply a 5 by 5 ft (1.52 by 1.52 m) test in an inconspicuous area that meet 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 BY VOLUME
Primer	A750 / B725	2 to 1
Base coat	A750 / B725 / Trowel Granules <sup>1</sup> / E-Z Trowel <sup>2</sup>	2 to 1
Grout coat	A750 / B725	2 to 1
Topcoat	A750 / B725	2 to 1

<sup>1</sup> Granules at a rate of 75 lbs (33.75 kg) per 1-1/2 (5.7 L) gallons of mixed resin

<sup>2</sup> E-Z Trowel at a rate of 10 lbs (4.5 kg) per 1-1/2 gallons (5.7 L) 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.

### Application

1. Install the cove base, as required.
2. Install the prime coat by squeegee at 250 ft<sup>2</sup>/gallon (6.25 m<sup>2</sup>/L) (approximately 6 – 8 mils). The base coat can be applied to the wet prime coat.

3. Screed-apply the mixed epoxy base coat including the Selbatwede 71 quartz aggregate at a rate of 63 ft<sup>2</sup> (5.86 m<sup>2</sup>)/batch. Hand trowel or power trowel the material to compact and level the base coat. Obtain a nominal thickness of 1/4" (6 mm). Allow to cure 12 – 24 hours.
4. Install the clear grout coat with squeegee or trowel at 100 ft<sup>2</sup>/gallon to seal the porous body coat. Allow to cure 12 – 24 hours.
5. Lightly sand and install the clear topcoat at 155 ft<sup>2</sup>/gallon (3.8 m<sup>2</sup>/L). Use a squeegee and lightly backroll. Allow to cure 24 hours.
6. For increased abrasion resistance and UV stability, substitute N300CR for the finish coat.
7. 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).
- Use an effective moisture barrier for substrates on or below grade; if not present, call your local BASF representative for options.
- 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.
- For increased abrasion resistance and UV stability, substitute N300CR 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).
- 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 versions.

- 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](http://www.BuildingSystems.BASF.com), e-mailing your request to [basfscst@basf.com](mailto:basfscst@basf.com) or calling 800/433-9517. Use only as directed.

**For medical emergencies only, call ChemTrec (1-800-424-9300).**

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