BASF

The Chemical Company

PRODUCT DATA

3 03 53 16 **Iron-Aggregated Concrete Topping**

MASTERTOP® 1182

Heavy-duty epoxy and metallic-aggregate floor topping

Description

Mastertop® 1182 is a heavy-duty epoxy and metallic-aggregate floor topping. This system is designed for heavy-duty industrial environments and other areas exposed to traffic and abuse. Mastertop® 1182 can be trowel applied at 1/4 – 1" (6 – 25 mm) in thickness per lift.

Yield

Primer: 210 – 245 ft²/unit (150 – 175 ft²/gallon)

Base coat: 25 – 30 ft²/unit, at 1/4" thickness (0.3 ft²/lb)

Topcoat: 210 – 245 ft²/unit (150 – 175 ft²/gallon)

All coverage rates are approximate and may vary dramatically with concrete porosity and application methods.

Packaging

Primer unit: 1.4 gallons of epoxy (0.93 gallons of resin and 0.46 gallons of hardener)

Base coat unit: 112 lb kit, consisting of 1.4 gallons of epoxy, and two 50-lb bags of metallic aggregate

Top coat unit: 1.4 gallons of epoxy (0.93 gallons of resin and 0.46 gallons of hardener)

Primer, base coat, and top coat units are supplied in a convenient 3-gallon mixing pail.

Features	Benefits
• Fast curing	Minimizes downtime
• Uniquely processed metallic aggregate	Provides the highest level of impact tolerance and abrasion resistance
• Excellent working characteristics	Easy to apply
• Very strong bond to concrete	Will not delaminate
• High abrasion resistance	Handles repeated, heavy traffic
• Measurably tougher than concrete	Long-lasting, durable floors
• Specially treated metallic aggregate	Resists oxidation
• 100% solids epoxy resin	Good chemical resistance
• Solvent free	Environmentally friendly
• Nonflammable, noncombustible	Safer installations

Color

Charcoal gray

Shelf Life

2 years when properly stored

Storage

Store in unopened containers at 60 – 80° F (16 – 27° C) in clean, dry conditions.

Where to Use

APPLICATION

- Areas exposed to high abrasion and impact
- Where quick turnaround installations are desired compared to concrete-based toppings
- High-traffic areas
- Industrial, distribution, and manufacturing environments
- Heavy-equipment manufacturing and maintenance facilities
- Waste collection and transfer stations
- Loading docks and staging areas

LOCATION

- Interior floors

SUBSTRATE

- Over new and existing concrete substrates and toppings

Protection and Repair

Technical Data

Composition

Mastertop® 1182 is an epoxy and metallic-aggregate flooring material.

Typical Properties

PROPERTY	VALUE
Working time, min	
50° F (10° C)	90
77° F (25° C)	50
90° F (32° C)	30
Cure time, hrs (accepts light traffic)	
50° F (10° C)	48
77° F (25° C)	24
90° F (32° C)	16
Full cure, hrs (accepts heavy traffic)	
50° F (10° C)	72
77° F (25° C)	48
90° F (32° C)	30

Test Data

PROPERTY	RESULTS		TEST METHODS
Degradation resistance			LA Rattler Test
Cycles	**Weight loss, %**		
0	0		
500	3.5		
1,000	6.0		
1,500	8.0		
2,000	12.7		
	Resin	**Hardener**	
Flash point, ° F (° C)	227 (108)	240 (115)	Pensky-Martens Closed Cup
Compressive strength, psi (MPa)			ASTM C 579
1 day	5,600 (38)		
7 day	12,600 (86)		
Tensile strength, psi (MPa)	700 (4.8)	2,800 (19)	ASTM C 307
Flexural strength, psi (MPa)	2,900 (19.9)	7,300 (50)	ASTM C 580
Modulus of elasticity, psi (MPa)	2.8 x 10^6 (19,300)		ASTM C 469
Abrasion resistance, in (mm), 60 min	0.015 (0.04)		ASTM C 779
Impact resistance, psi (mm-kg)	> 240 (> 2,760)		ASTM D 5420
Toughness, in/lb per in^3 (Nm/m^3), 7 days	88.9 (0.2526)		ASTM C 469

Test results are averages obtained under laboratory conditions. Expect reasonable variations.

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

How to Apply

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 preferred method of surface preparation for both new and existing floors. It is the only acceptable method of preparation where warranties will be issued. Mechanically profile the floor to a minimum CSP 4, 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 meet the owner's expectations for appearance, slip resistance, and performance.

Priming

1. Thoroughly and individually mix the primer Part A (resin) and Part B (hardener) before combining them. While mixing the Part A, pour the Part B into the mixing container and continue mixing until thoroughly integrated (about 2 minutes).

2. Immediately apply the primer to the properly prepared substrate at 150 – 175 ft^2/gallon at 6 – 7 wet mils using a brush or roller.

3. Timing the application of the epoxy primer and base coat is critical. The base must be applied while the epoxy primer is still wet or tacky.

Application of Base Coat

1. Thoroughly and individually mix the base coat Part A (resin) and (Part B) hardener before combining them. While mixing Part A, pour Part B into the mixing container and continue mixing until thoroughly integrated (about 2 minutes).

2. Immediately pour the epoxy into a mortar mixer. While the mortar mixer is running, slowly add 2 bags of aggregate. Continue mixing until the aggregate and epoxy are thoroughly integrated (about 2 or 3 minutes).

3. Apply the base coat to the freshly primed (wet or tacky) surface at 25 – 30 ft^2/batch. Screed the topping to the appropriate thickness and trowel to a tight, dense surface.

Application of Topcoat

1. Thoroughly and individually mix the topcoat Part A (resin) and Part B (hardener) before combining them. While mixing Part A, pour Part B into the mixing container and continue mixing until thoroughly integrated (about 2 minutes).

2. Apply the topcoat finish to the freshly placed base coat as soon as the weight of foot traffic will not leave an impression on the floor. DO NOT allow the topping to cure more than 48 hours before applying a topcoat.

3. Immediately apply the epoxy topcoat to the topping material at 150 – 175 ft^2/gallon at 6 – 7 mils wet thick using a 1/8" (3 mm) notched squeegee. Pour the topcoat in a ribbon pattern and spread it evenly over surface. Backroll with a squeegee to ensure a uniform application. Use a flat squeegee to remove any puddling or excess material and to allow uniform absorption and maximum integration of the topcoat into the topping.

4. The level of porosity and the desired finished appearance will determine whether a second topcoating should be applied. If a second coat is desired, apply it only over a tacky first coat (within 3 – 24 hours). Allow the topcoat to fully cure before opening the floor to traffic.

For Best Performance

- Precondition all components to 70° F for 24 hours before using.
- Verify the correct components on the jobsite before beginning mixing and application.
- Carry all expansion and control joints through the final topcoat.
- Rapid thermal cycling will lead to premature failure of this product.
- Do not apply Mastertop® 1182 when the surface temperature is below 50° F (10° C).
- Storage temperature should be maintained between 60 and 75° F (15 and 24° C).
- Use power troweling equipment capable of producing low (20 – 25) rpm designed for polymer floor products. Standard concrete power trowels are NOT recommended.
- 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 and Safety

MASTERTOP® 1182 RESIN PART A

WARNING

Mastertop® 1182 Resin Part A contains epoxy resin, alkyl glycidyl ether.

Risks

May cause skin, eye and respiratory irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Ingestion may cause irritation.

Precautions

Use only with adequate ventilation. Avoid contact with skin, eyes and clothing. Keep container closed when not in use. Wash thoroughly after handling. DO NOT take internally. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Proposition 65

This product contains materials listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents.

MASTERTOP® 1182 HARDENER PART B

DANGER – CORROSIVE

Mastertop® 1182 Hardener Part B contains polyoxypropylenediamine; nonyl phenol; aminoethylpiperazine

Risks

Contact with skin or eyes may cause burns. Ingestion may cause irritation and burns of mouth, throat and stomach. Inhalation of vapors may cause irritation. May cause dermatitis and allergic responses. Potential skin and/or respiratory sensitizer. Repeated or prolonged contact with skin may cause sensitization. INTENTIONAL MISUSE BY DELIBERATELY INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

Precautions

DO NOT get in eyes, on skin or clothing. Wash thoroughly after handling. Keep container closed. DO NOT take internally. Use only with adequate ventilation. DO NOT breathe vapors. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Proposition 65

This product does not knowingly contain materials listed by the State of California as known to cause cancer, birth defects or other reproductive harm.

VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents.

MASTERTOP® 1182 AGGREGATE

WARNING!

Mastertop® 1182 Aggregate contains Iron; Silica, crystalline quartz; Ceramic; Activated carbon.

Risks

May cause skin, eye or respiratory irritation. Ingestion may cause irritation. Contains small free respirable quartz which has been listed as a suspected human carcinogen by NTP and IARC. Repeated or prolonged overexposure to free respirable quartz may cause silicosis or other serious and delayed lung injury.

Precautions

Avoid contact with skin, eyes and clothing. Prevent inhalation of dust. Wash thoroughly after handling. Keep container closed when not in use. DO NOT take internally. Use only with adequate ventilation. Use impervious gloves, eye protection and if the TLV is exceeded or used in a poorly ventilated area, use NIOSH/MSHA approved respiratory protection in accordance with applicable Federal, state and local regulations.

First Aid

In case of eye contact, flush thoroughly with water for at least 15 minutes. In case of skin contact, wash affected areas with soap and water. If irritation persists, SEEK MEDICAL ATTENTION. Remove and wash contaminated clothing. If inhalation causes physical discomfort, remove to fresh air. If discomfort persists or any breathing difficulty occurs or if swallowed, SEEK IMMEDIATE MEDICAL ATTENTION.

Waste Disposal Method

This product when discarded or disposed of is not listed as a hazardous waste in federal regulations. Dispose of in a landfill in accordance with local regulations.

For additional information on personal protective equipment, first aid, and emergency procedures, refer to the product Material Safety Data Sheet (MSDS) on the job site or contact the company at the address or phone numbers given below.

Proposition 65

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VOC Content

0 g/L or 0 lbs/gal less water and exempt solvents.

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

BASF Construction Chemicals, LLC – Building Systems

889 Valley Park Drive
Shakopee, MN, 55379

www.BuildingSystems.BASF.com

Customer Service 800-433-9517
Technical Service 800-243-6739

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