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Technical Data Guide

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Concrete
Waterproofing

MasterSeal® 550

Flexible, cementitious waterproofing membrane

FORMERLY FLEXTIGHT®

PACKAGING

5-gallon (18.93 L) pails, containing:
1.75-gallons (6.6 L) of Part A liquid
32 lbs (14.5 kg) Part B powder

COLOR

Grey

YIELD

80 ft² (7.4 m²) per MasterSeal® 550 kit

Coverage may vary due to substrate condition and application procedure.

STORAGE

Store in unopened containers in a cool, clean, dry area. Keep MasterSeal 550 Part A from freezing in the container; do not store below 35° F (2° C).

SHELF LIFE

9 months when properly stored

DESCRIPTION

MasterSeal 550 is an acrylic-modified, Portland cement-based flexible waterproofing membrane for concrete and masonry. Use it above or below grade on interior or exterior surfaces.

PRODUCT HIGHLIGHTS

- Waterproof membrane protects against soil moisture and water seepage; extends life of structural slabs and underlayments
- Creates a flexible membrane that accommodates substrate movement; prevents cracks from telegraphing; provides excellent underlayment for thin-set tile applications
- Breathable. Allows interior moisture vapor to escape
- Ready-to-use kit, easy to mix and place
- Low VOCs, environmentally friendly; low odor

APPLICATIONS

- Walls and floors
- Tiled pools and fountains
- Plaza decks
- Balconies
- Mechanical rooms

HOW TO APPLY

SURFACE PREPARATION

1. Substrates must be sound and level and the surface free from protrusions, large pores, honeycombs, gaping cracks, and ridges. Concrete substrates should be cured 28 days before MasterSeal® 550 application.
2. Sandblast or waterblast substrates to remove all traces of water repellents, bitumen, form oils, grease, paint, and other foreign matter from substrate that could act as a bondbreaker.
3. Any edges must be rounded. Form covers with regular site-mixed mortar and round to a minimum radius of 1 1/2" (38 mm).

MIXING

1. MasterSeal 550 is supplied in precisely proportioned units ready for mixing. When using MasterSeal 550 in cooler climates or if a thicker consistency is desired, reduce the amount of Part A (liquid) in the mixture by approximately 1 quart (0.9 L).
2. Precondition material to 70° F ±5° (21° C ±2°) for easier mixing and application.
3. Slowly add Part B (powder) to Part A while mixing with a 3/4" drill and mixing paddle.
4. Mix to a uniform, smooth, lump-free consistency. If a looser consistency is desired, add the remaining portion of Part A liquid. Overmixing may entrap air.
5. Mix for 3-5 minutes while blending components and 1-2 minutes after all components have been blended.
6. The pot life of MasterSeal 550 is approximately 30-90 minutes depending on ambient conditions.

APPLICATION

1. The substrate must be saturated surface-dry (SSD) with no standing water.
2. MasterSeal 550 is applied only to the positive side (source of moisture) of the substrate in 1 or 2 void-free coats. Allow 24 hours before second coat. Thoroughly work the material into the substrate. Make sure the rounded edges are fully coated. Apply at 80 wet mils, using a 1/8" (3 mm) square-notched trowel, yielding 60 dry mils (1/16" or 1.6 mm).
3. Embed fiberglass tape wherever dissimilar materials join. Also, treat surface cracks less than 1/8" (3 mm) wide and areas where underlayment panels meet.
4. In most cases, one coat is sufficient without reinforcing mesh. If reinforcement is necessary, embed an appropriate mesh into the still-wet first coat and use a trowel to work the material up and through the mesh until it is completely embedded. Material that is too thick is subject to drying or shrinkage cracking. Be certain to cover all reinforcement material.
5. Smooth over with the flat trowel edge, creating a smooth, void-free membrane.

DRYING TIME

1. Prevent premature drying of the green application and protect it from extreme heat, direct sunlight, wind, rain, and frost for at least three days. (Curing time varies with humidity, temperature, and substrate porosity.)
2. Tile can be applied after 3 days.
3. Do not allow surface to become wet before curing is complete. Protection boards may be needed to avoid puncturing membrane while installing tile.

CLEAN UP

Wash tools with water immediately after use. Cured material may only be removed mechanically.

FOR BEST PERFORMANCE

- Do not apply at temperatures below 40° F (4° C) or above 90° F (32° C).
- Do not dilute with water.
- Do not use additives of any kind.
- Do not apply thicker than 1/16" (1.6 mm).
- Do not over trowel.
- Use caution under extremely hot or windy conditions; they will shorten the pot life and reduce trowelability. Call Technical Service for recommendations.
- MasterSeal 550 is not a vapor barrier.
- This product is not recommended for application over lauan, presswoods, particle board, masonite, chipboard, plywood, asbestos board, or any other unstable materials.
- Do not use as an adhesive to install ceramic tile or natural stone.
- Allow coating to harden sufficiently (not less than 3 days) before tiling over it.
- Do not puncture membrane while setting tiles.
- Concrete substrates should be cured 28 days before MasterSeal 550 application.
- Concrete substrates should be wet cured; remove any membrane curing compounds.
- Radiant-heated floors must not be in operation 24 hours before, during, or 72 hours after installation. Follow Ceramic Tile Institute (CTI) recommendations for tiling over radiant-heated floors.
- If MasterSeal 550 weathers for more than 28 days, a recoating is recommended to ensure adhesion of subsequent coatings or overlays.
- Do not add water or fresh mortar to MasterSeal 550 that has already begun to set.
- Two void-free coats are necessary when used for water containment.
- Allow 14 days cure before submersion.
- 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.

Technical Data

Composition

MasterSeal® 550 features acrylic-modified Portland cement technology.

Typical Properties

PROPERTY	VALUE
Powder	Fine aggregate and hydraulic cement and other proprietary additives; asbestos free
Liquid	Modified acrylic dispersion
Mixing Ratio	1.75 gallons (6.6 L) Flextight liquid (Part A) to 32 lbs (14.5 kg) Flextight powder (Part B) (3.2 gallons [12.1 L] total unit)
Working Time	Approximately 30 minutes
Time Before Tiling or Overcoating	Minimum 72 hours

Test Data

PROPERTY	RESULTS	TEST METHODS (CRITERIA)
Adhesive Pull-Off Strength, psi (MPa)	350 (2.4)	ASTM D 4541-A2
Adhesion to Concrete, psi (MPa)	85 (0.6)	ASTM C 297
Tensile Strength, psi (MPa)	200 (1.4)	ASTM D 412 (without mesh)
Elongation, %	50	ASTM D 412 (without mesh)
Water Absorption, %	10	ASTM D 570
Waterproofing	Pass: resisted 100 ft positive hydrostatic head	28 days (untreated substrate) at 50 psi (0.3 MPa)
Vapor Permeability, dry perms	0.93	ASTM E 96
Crack Bridging, mm	2	CR-TM 41.1

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

HEALTH, SAFETY AND ENVIRONMENTAL

Read, understand and follow all Material Safety Data Sheets and product label information for this product prior to use. The MSDS can be obtained by visiting buildingsystems.basf.com, e-mailing your request to basfbcst@basf.com or calling 1(800)433-9517. Use only as directed.

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

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