



Green-Safe Technology

Polymer modified, interior, cement based, self leveling underlayment

DESCRIPTION:

Level -1 is a cement based, interior, self leveling underlayment that can be used to create a smooth, flat or level surface prior to the installation of floor coverings. Its extended working time, low shrinkage and superior leveling properties make it the ideal product for renovation and new construction projects.

Level -1 produces a hard durable surface that can be left open to normal construction traffic for up to one year before the installation of finished flooring and it can be feather edged to meet existing transitions.

PRODUCT FEATURES:

- ▶ Ideal for barrel mixing or pumping applications
- ▶ Can be left open to normal construction traffic for up to 12 months
- ▶ Can be installed from 1/4" - 3" Neat and to 5" properly extended
- ▶ Maintains healing and pour merging properties for up to 25 minutes
- ▶ Fast return to service; walkable in just 2-3 hours
- ▶ Compatible with all adhesives approved for concrete
- ▶ Can be Installed over 5 day old Green concrete
- ▶ Very Economical
- ▶ Will not contribute to the growth of mold or mildew
- ▶ No dangerous emissions or irritating fumes
- ▶ Environmentally friendly - Contributes points to LEED® Certified Projects

SURFACE PREPARATION:

NOTE: Level -1 is not a Vapor Barrier. Test per ASTM F-1869 for (MVER) and ASTM F-2170 for (RH). If the substrate exceeds 8 lbs. (MVER) or 95% (RH) or the readings exceed those of a Coatings, Adhesive or Flooring Manufacturer's product that will be applied, (Whichever is Stricter) use CMP V-20 Plus or V-25.

ALL: Surfaces must be clean, sound, dry, 50° F and free of oil, gypsum compounds, wax, grease, sealers, curing compounds, urethane, paint, asphalt, loose surface material or any contaminate that will act as a bond breaker. Never use Acid or Mastic Removers on any surface to which a CMP product will be applied.

CONCRETE: Weak surfaces, must be cleaned down to solid sound concrete by mechanical means such as chipping, shot-blasting, grinding or scarifying.

NON-POROUS: Substrate must be sound and fully bonded. Shot-blast ceramic and Quarry tile substrates. Grind or shot-blast Terrazzo and epoxy coatings; remove all dust prior to priming.

WOOD: Prepare by sanding down to clean bare wood. Secure loose boards with deck screws and fill open seams with PrepStar. Subfloors must be minimum 3/4" solid hardwood, untreated, APA Rated, tongue & groove, Type 1, exterior grade, plywood, OSB or equal. The subfloor must be free of deflection (minimum L/360), considering both live and dead loads. Use an approved anti-fracture membrane over Level -1 in areas where Ceramic Tile or Stone are being installed. After priming, install 3.4 Diamond Lathe over the entire area, overlap seams 1 inch and fasten every 6 inches. Be sure to keep the application of Level -1 within the 24 hr open time of the AS-100 prime coat. Apply a 1/2" minimum of Level -1.

METAL: Substrate must be prepared by abrasive cleaning to a White metal finish, structurally sound and free of deflection (L-360). Remove ALL residue using a dry cleaning method or wipe down with Xylene.

03 54 00

Cementitious Underlayments

3

09 80 00

Floor Finishes

9

Packaging:

50 lb. bag : 48 per pallet
2500 lb. "Super Sack" : 1 per pallet

Color:

Grey

Shelf Life: Store in cool, dry area 70° F
6 Months

Water Requirements:

5.5 quarts per 50 lb. bag

Approx. Coverage: Per 50 lb. bag
50 sq. ft. @ 1/8" — 25 sq. ft. @ 1/4"

Installation Thickness:

1/4" - 3" Neat, 5" Properly Extended

Installed Weight (per Sq. Ft.)

2.10 lbs. @ 1/4"

Application Temperature Range:

50° F - 95° F Note: Above 85° F use ACI
Hot-Weather Application Guidelines

Set: ASTM C-191 (70° F - 50% RH)

Flow Time: 25 - minutes
Final Set: 90 - minutes

Accepts Coverings: (70° F, 50% RH)
Ceramic, Quarry, Porcelain Tile: 24 hrs.
Common flooring 1-3 days @ 1/4" - 1/2"
Always ensure underlayment is totally dry especially when using moisture sensitive adhesive and floor coverings.

Note: Thickness of application, cooler temperatures, inadequate ventilation & higher humidity will extend drying time.

ADHESIVE RESIDUE: Level -1 can be installed over thin (translucent) sound, non-water soluble adhesive residues that are free of tack and well bonded to the substrate. The adhesive Cutback needs to be prepared using the wet scrape method as outlined in the Resilient Floor Covering Institute booklet "Recommended Work Practices for the Removal of Resilient Floor Coverings". Remove all patching materials below the adhesive and avoid applications where heat or excessive moisture will soften or degrade the adhesive.

PRIMING:

CONCRETE: Dilute AS-100 Primer 1:1 with clean water and apply evenly using a nylon push broom with exploded tips. Do a thin coat and work into surface; leave no bare spots or puddles. Broom out puddles that may form while primer is drying (min. 2 hrs, max. 24 hrs). On very porous concrete do an initial primer application diluted 3:1 Water to AS-100 in the same manner. Allow to dry (min. 1hr.) before applying 1:1.

NON-POROUS, WOOD & ADHESIVE RESIDUE: Apply one coat of undiluted AS-100 using a 3/8" nap roller. Apply a thin film, leave no puddles or bare spots. Allow primer to dry (min. 2 hrs, max. 24 hrs.)

METAL: Prime properly prepared, sound metal substrates with EP-100 Primer. (See Tech. Data Sheet)

MIXING:

CONCRETE, NON-POROUS & ADHESIVE RESIDUE: Mix 2-bag batches of Level -1. For each bag add a maximum 5.5 quarts of clean cold water into a CMP mixing drum. Then, add bags of Level -1 while mixing at full speed with a CMP mixing wand attached to a heavy duty 1/2" drill (min. 850 rpm). Mix for 2 minutes or until lump free. Add No additional water and keep the mixing wand immersed in the material to avoid entraining excess air.

WOOD & METAL: The addition of PolyBond is required to increase the resiliency of Level -1 for applications over wood and metal. Mix in the same manner but for each bag of Level -1 combine 2 quarts Poly-Bond and 4.5 quarts of clean cold water.

INSTALLATION:

BARRELING: Pour the blended Level -1 on the floor immediately and disperse with a CMP gauge rake followed by finishing with a CMP smoother. Plastic athletic type cleats should be worn when using the smoother to avoid leaving marks. Level -1 will maintain its workability and healing for up to 25 minutes.

PUMPING: Deep placements and large projects are more efficiently installed with the use of a pump. Contact CMP for instructions, recommended pumping procedures and approved equipment.

EXTENSION:

Contact CMP Technical for project specific extension instructions.

PRODUCT NOTES:

During application and for first 24 hrs, prevent excessive air movement but maintain adequate ventilation and protect material from direct sunlight. These variables can cause uneven curing patterns a false set and cause cracking. Level -1 is self-curing no wet curing methods or cure and seals should be used.

Substrate must have a minimum direct tensile bond test reading of 72 psi per (ASTM C-1583-04). Do not install over Gypsum underlayment; for leveling existing Gypsum underlayment use LP-1.

Expansion and isolation joints must be reflected through Level -1.

Clean with water immediately after use or by mechanical means once dry.

Compressive Strength: (ASTM C-109)

1 Day	1500 psi	10.5 MPa
7 Day	3000 psi	20.7 MPa
28 Days	5000 psi	34.5 MPa

Flexural Strength: (ASTM C348)

28 Days	>1000 psi	6.9 MPa
---------	-----------	---------

Tensile Strength: (ASTM C 190)

28 days	>550 psi	3.8 MPa
---------	----------	---------

Flammability: (ASTM E84)

Flame Spread: -0-

Fuel Contribution: -0-

Smoke Development: -0-

Eligible LEED® credits : 5

Recycled Content (MR 4.1 & 4.2)
2 Points

Regional Materials (MR 5.1 & 5.2)
2 Points

Low Emitting Materials (EQ 4.1)
1 Point

Warranties:

Standard - 1 Year Product

Qualifying - CMP Extended & Gold Seal

Health & Safety:

Always refer to the Material Safety Data Sheet (MSDS) prior to using this product for full Health, Safety and Handling guidelines. MSDS sheets are available by calling 215.540.8100 or you can visit www.cmpsp.com

For Professional Use Only

KEEP OUT OF REACH OF CHILDREN

