

# Underlayment - Quick Setting

## Quick Setting Patching & Underlayment

### MATERIAL STANDARDS

- ASTM C109
- ASTM C794
- ASTM D638
- FTMS 105a, M6411
- FTMS 501a, M7511
- MIL-D-3135

### SPECIFICATION CLASSIFICATIONS

- 03 01 30 Maintenance of Cast-In-Place Concrete
- 03 01 40 Maintenance of Precast Concrete
- 03 01 50 Maintenance of Cast Decks & Underlayment
- 03 01 50.61 Resurfacing of Cast Decks & Underlayment
- 03 01 50.71 Rehabilitation of Cast Decks & Underlayment
- 03 50 00 Cast Decks & Underlayment
- 03 54 00 Cast Underlayment
- 06 16 26 Underlayment, Sheathing
- 06 16 29 Acoustical Underlayment
- 07 10 11.16 Cementitious Dampproofing
- 07 16 13 Polymer Modified Cement Waterproofing
- 09 01 60 Maintenance of Flooring, CoPolymer/ Cementitious
- 09 28 00 Backing Boards and Underlayments

### USES/APPLICATIONS

- Flowable underlayment
- Trowelable base & repair mortar
- High depth & thick mortar bed
- Create slope for drainage
- Create cove bases for cleanliness & aesthetics
- Prevent or resolve elevation problems at doorways, landings, steps, etc.
- Sub-surface for various surface finishes (i.e., vinyl, resilient tile, carpet, stone, ceramic & quarry tile)

### ADVANTAGES

- Seamless, monolithic underlayment
- Excellent adhesion to sound, solid, dry concrete substrate
- Can be installed over existing surfaces
- Screeds easily to an even finish
- Sets in 2 to 4 hours
- Good thermal and acoustical insulation
- Easy-to-use
- Interior & exterior use
- Outstanding long-term durability and performance
- Superior crack resistance from flexing and twisting
- Inhibits growth of mold and mildew
- Fire-resistant

### PRODUCT DESCRIPTION

Underlayment – Quick Setting is a fast-setting, trowel grade, single-component, polymer modified, cementitious underlayment formulated to provide a durable, uniform sub-surface with exceptional bond strength and crack resistance. It is pre-packaged for easy on-site mixing with water. Quick Setting is specifically formulated to cure in less time than traditional underlayments, allowing finished overlayers to be installed in 3 to 4 hours, making it an ideal solution for occupied space where “walk on” time is critical. This fire resistant material also provides good thermal and acoustical insulation making it suitable for use in many occupied space environments.

Underlayment – Quick Setting is an easy-to-use, versatile material that can be used as a traditional underlayment, a base mortar, or as a repair material for concrete surfaces. The incorporation of high-performance fungicides help inhibit the growth of mold and mildew, contributing to the longevity of the overall installation.

Underlayment – Quick Setting installs from a feathered edge to 3 inches (76.2mm) finished thickness and is designed for use over properly prepared plywood or concrete substrates. It can also be installed over properly prepared existing surfaces like quarry tile, flagstone, etc. Mortar layer can be sloped for additional protection against water pooling and penetration and to prevent elevation problems at doorways, landings, steps, etc. Allow 2 to 4 hours for foot traffic or continued installation of finished overlayers.

### COLOR

Concrete Gray

### INSTALLATION CONDITIONS

Mer-Ko underlayments must not be installed if the surface and ambient temperature is below 40°F (4.4°C) or above 120°F (48°C), or when precipitation is expected or occurring.

### SUBSTRATE PREPARATION

Before using Mer-Ko underlayments, ensure proper preparation of the substrate. Clean the application area using a pressure washer, grinder, shot blaster or scarifier as required to produce a clean, sound substrate. The substrate surface must be clean, dry and free of dust and any other contaminants at the time of material application. When applicable: Use minimum No. 26 gage bonderized steel or equivalent flashing around the perimeter; Do not use copper perimeter flashings.

### Concrete Surfaces

Concrete surfaces must be clean and sound. All holes and cracks must be cleaned and filled with an appropriate Mer-Ko underlayment. All high spots must be removed by chipping or grinding.

### Plywood Surfaces

Plywood substrates shall be a minimum 5/8 inch thick (16mm) exterior grade, PS 1, exposure one, plywood, complying with the International Building Code with all edges blocked. Face plies must be perpendicular to the supports. The plywood must be attached to all blocking and end bearings with countersunk wood screws, screw or ring-shank nails equivalent to 8d common nails, spaced 4 inches (101.6mm) on center at sheet perimeters and 8 inches (203.2mm) on center in the field areas, or as otherwise required by the IBC, whichever is more restrictive.

### APPLICATION INSTRUCTIONS

#### Primer Coat

Apply one coat of Prep Seal Primer to the substrate using a 3/8 to 3/4 inch nap paint roller, ensuring complete coverage. Apply liberally on rough or textured surfaces. Allow the primed area to dry a minimum 1 hour at 70°F (21°C) 50% RH, before proceeding with the Underlayment application over concrete or install lath over plywood.

#### Metal Lath Reinforcement :

For applications over plywood, Install a minimum No.17, 1.5 x 1.5 inch self furred welded wire mesh (Structalath™) or optionally, minimum 2.5 self furred galvanized expanded metal lath. Lath is installed perpendicular to the joists over the entire deck area stopping a minimum of 1 inch (25.4mm), from any deck edge or vertical juncture.

Use fasteners that will penetrate through the sheathing into the structural members not less than 3/4 inch. (19 mm) at lath laps and at a maximum 6 inches on center.

Side laps-between joists, are wire tied together at intervals not more than 9 in. (229 mm) using a minimum 18 ga. galvanized annealed steel wire.

-OR-

Joined together with no more than two fasteners between rows of fasteners if not wire tied. Fasteners used for this application shall not be long enough to penetrate through the sheathing.

For larger areas, the lath can be placed as the underlayment is installed to avoid crushing/loss of the furring when walked on. Over lap wire lath a minimum 1.5 inch (one opening/square), over lap metal lath a minimum 1 inch.

# Product Data Sheet

## Underlayment - Quick Setting

### COVERAGES

Coverage rates are approximate and can vary greatly due to surface conditions and installation techniques.

#### Prep Seal Primer

Base Flashing ..... 1,750-2,000 ft<sup>2</sup> (70-93 m<sup>2</sup>)/5 gallon pail  
At 1 mil (0.025 mm) DFT

#### Underlayment

Quick Setting ..... 25 ft<sup>2</sup> (2.32 m<sup>2</sup>) at 1/4 in. (6.35mm)/50 lb bag

Do not mechanically fasten lath when used with Mer-Ko's Dual Pro 380 system. In this use all Lath overlaps are tied together at 1 ft. intervals using a minimum 18 ga. galvanized annealed steel wire.

### Underlayment

#### Quick Setting

Mix one 50 lb. (22.7 kg) bag of Underlayment – Quick Setting Compound with approximately 1 gallon (3.79 L) of water, based on intended use and environmental conditions at the time of application. Add the Compound powder to the water slowly during the mixing process and evaluate the material's consistency to ensure adequate workability, use a slightly wetter mix as a first coat when used over expanded metal lath in order to Key it and for other thin applications, use a slightly stiffer mix for second coat. applications over wire lath and applications thicker than 1/2 inch. Trowel apply horizontal surface areas at the desired thickness, feathered edge to 3 inches (0- 76.2mm).

Screed to ensure complete and uniform coverage. After the application has partially set, surface moisture has dissipated and while the material still workable, uniformly float the surface using a wood concrete or neoprene rubber float to consolidate and densify it. Allow the material to dry for 2 to 4 hours for foot traffic; 12 hours at 70°F (21°C) 50% RH, for full service and heavy loads.

### CAUTIONS & LIMITATIONS

- The substrate surface must be structurally sound, clean, dry and free of dirt, dust, oil, grease, paint or other contaminants at the time of material application.
- Concrete sub strates must have a minimum compressive strength of 3,000 psi tested by "point loading" technique.
- No unapproved additives should be added to Underlayment, including additional sand or aggregate as it will affect product performance.
- Underlayments must not be installed if the surface or ambient temperature is below 40°F (4.4°C) or above 120°F (48°C), or when rain is expected or occurring.
- Application thickness of 0 to 3 inches (0 to 76.2mm) may produce minor hairline cracks. These should not affect product performance.
- When contemplating a deck installation over an unheated enclosed space (e.g., soffit, garage, etc.) provisions must be made to vent the space.
- Wood based sub-surfaces used as pedestrian traffic areas require a Mer-Ko underlayment or minimum 1 inch (25.4mm) sand/cement mud bed pre-floated with a self furred, galvanized, welded wire or metal lath reinforcement is required to provide a rigid substrate to support traffic (Consult TCNA).

### CARE & MAINTENANCE

Proper protection of the Underlayment should be provided if there will be a delay in application of the finish materials.

### PACKAGING

#### Underlayment

Quick Setting Compound ..... 50 lb (22.7 kg) bag

#### Primer

Prep Seal Primer ..... 5 gal (18.9 L) pail

### PHYSICAL CHARACTERISTICS

Adhesion ..... > 550 psi  
(ASTM C794)

Compressive Strength ..... > 3,500 psi  
(ASTM C109) 28 Day cure

Fire Rating ..... Fire Retardant  
(FTMS 105a, Method 6411)

Indentation Characteristics ..... < 3%  
(MIL-D-3135)

Thickness ..... Feathered Edge to 3" inches  
(0 to 76.2mm)

Water Absorption ..... < 2.5%  
(FTMS 501a, Method 7511)

Weight ..... 1.2 lbs./ft<sup>2</sup>  
at 1/8" (3.2mm)

### STORAGE & HANDLING

Store Mer-Ko Quick Setting Underlayment material in a dry environment during storage and transport. All materials should be stored in compliance with local fire and safety requirements. Always wear proper safety equipment, including particle mask, eye protection and gloves when mixing and/or applying these products.

### SHELF LIFE

The shelf life is six (6) months from the date of manufacture in the original, unopened container when the material is properly stored.

### WARRANTY

Limited manufacturer's defect warranty. Contact Mer-Ko Technical Service Department for specific warranty information or [www.parexmer-ko.com](http://www.parexmer-ko.com)

### WARNING:

- Read complete Warning information printed on product container prior to use. For medical emergency information, call 1-800-424-9300.
- For more information on handling this product refer to its Material Safety Data Sheet (MSDS). The most current MSDS and Product Data Sheet (PDS) can be found on our website.
- This Product Data Sheet has been prepared in good faith on the basis of information available at the time of publication. It is intended to provide users with information about the guidelines for the proper use and application of the covered product(s) under normal environmental and working conditions. Because each project is different, Parex USA, Inc. cannot be responsible for the consequences of variations in such conditions, or for unforeseen conditions.

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