



ChemMasters®

Polyweld™ Bonding Agent & Primer

Copolymer Bonding Agent & Primer for Interior & Exterior Applications

SPECIALTY CONSTRUCTION PRODUCTS

P R O D U C T D A T A

DESCRIPTION

Polyweld Bonding Agent & Primer is a copolymer emulsion designed for use as a concrete bonding agent with stucco, plaster and primer for **Level-Top** self-leveling cementitious underlayments/overlayments. It dries to form a thin non-toxic flexible film, unaffected by alkalinity of gypsum, lime, and cement.

Once **Polyweld Bonding Agent & Primer** dries on a substrate it can rewet once, when topped with a cementitious product, to effectively bond fresh material to a substrate. Once bonded **Polyweld Bonding Agent & Primer** will not be affected by contact with moisture allowing for use on both interior and exterior applications.

USES

- **Polyweld** bonds fresh cementitious materials such as concrete, mortar, stucco, and plaster to various existing surfaces including concrete, brick, tile, stone, concrete block, plaster, gypsum board, lath or wood.
- **Polyweld** can also be used as a polymer modifier for cementitious mixes to increase bond strength, flexural strength, acid resistance and permeability resistance.
- **Polyweld** can be used in interior or exterior applications and on horizontal and vertical surfaces.
- Primer for **Level Top** underlayments & overlayments

ADVANTAGES

- May be re-wetted one time, up to 72 hours after drying.
- Can be used on interior or exterior applications.
- Resistant to most alkalis & acids.

TECHNICAL DATA

- **Polyweld Bonding Agent & Primer** Meets ASTM C 1059, Standard Specifications for Latex Agents for Bonding Fresh to Hardened Concrete, Type I

ASTM C1042 Bond Strength by Slant Shear: >700 psi (4.8 MPa)

Material	psi with (w/o) Polyweld	Remarks Failed in:
Cement	564 / (560)	Cement
Ottawa Sand Mortar 1:3	437 / (469)	Mortar
River Sand Mortar 1:3	510 / (485)	Mortar
Perlite Plaster 1:3	140 / (146)	Plaster

Material	psi with (w/o) Polyweld	Remarks Failed in:
Finish Plaster	237 / (243)	Plaster
Brown Coat gypsum (1:3)	85 / (87)	Plaster

Plasters molded to half briquettes of neat cement

Perlite Plaster (1:3) avg psi 195	failed in plaster
Finish Plaster avg psi 132	failed in plaster
Brown Coat Gypsum 1:3 avg psi 172	failed in plaster

DIRECTIONS:

SURFACE PREPARATION

All surfaces must be at least 3 days old. Remove all loose, spalled or disintegrated concrete, masonry or mortar. Remove any foreign material. Release agents and membrane curing compounds must also be removed. Prepare surface following ACI 546R-04 Concrete Repair Guide.

Read all of the application directions. Follow the directions for your particular application needs.

METHODS TO APPLY TO SURFACE:

- 1) For smaller areas: Use brushes or rollers designed for use with latex paints. Dampen brushes or rollers prior to use and shake out excess water.
- 2) For larger areas: Use airless sprayer equipment with 0.015 to 0.020 inch (0.38 to 0.51 mm) spray tips. Hold spray gun 12 to 18 inches from the surface and Apply **Polyweld** using a cross coat technique consisting of a horizontal pass followed by a vertical pass.

Directions as:

Primer for Level-Top Self-Levelers

Base concrete must be a minimum of 3 days old. The concrete must be clean and rough. All unsound concrete should be removed. The surface must be mechanically roughened with a shot blaster, scarify or other method that would provide a profile suggested in ICRI Guideline 07332, as determined by project engineer or a profile 10% of the overlay depth.



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Mix 1 gallon of **Polyweld** with one gallon of water and apply to the substrate at 200 ft²/gal (4.9 m²/L). For hand applications, use brushes or rollers designed for use with latex paints. Dampen brushes or rollers prior to use and shake out excess water. For larger areas, use airless sprayer equipment with 0.015 to 0.020 inch (0.38 to 0.51 mm) spray tips. Hold spray gun 12 to 18 inches (30.5 to 45.7cm) from the surface and apply **Polyweld** using a cross coat technique consisting of a horizontal pass followed by a vertical pass. Allow **Polyweld** to dry before applying cementitious overlayment/underlayment.

Directions as:

Traffic Bearing Overlays

*Prior to installation, contact ChemMasters' Technical Service to determine if using **Polyweld Bonding Agent & Primer** is appropriate for your particular application. In some instances, an epoxy bonding agent (**Duraguard 100**) may be more suitable.*

Base concrete must be a minimum of 3 days old. The concrete must be clean and rough. All unsound concrete should be removed. The surface must be mechanically roughened with a shot blaster, scarifier, hydro demolition, or other method. It is preferable that the concrete be roughened sufficiently to expose large aggregate to provide a surface profile depth 10% of the overlay thickness or engineers requirements.

Polyweld Bonding Agent & Primer may be applied neat, as part of a bond slurry coat before the concrete overlay, as necessary, or specified. If a bond slurry coat is required, it should consist of 1 gallon of **Polyweld Bonding Agent & Primer**, 2 gallons of water and 30 pounds of cement. Mix ingredients with a drill and paddle for approximately 3 minutes or until lump free. This mixture should be sufficient for 200 to 300 ft²/gal (4.9 to 7.4 m²/L) of concrete. Scrub the mixture into the substrate with a stiff bristle broom and apply a cementitious topcoat before the slurry coat dries.

Directions as:

Polymer Modifier

When using **Polyweld Bonding Agent & Primer** to produce a polymer modified mortar, add approximately 3 gallons (34 L) of **Polyweld Bonding Agent & Primer** per 100 pounds (45.36 kg) of cementitious material. The properties achieved using **Polyweld Bonding Agent & Primer** as a polymer modifier will vary depending on the composition of the mortar. A complete evaluation should be completed prior to using the polymer modified mix. Contact ChemMasters Technical Service personnel for assistance in this evaluation.

Directions as:

Plaster/Patching

APPLICATION RATE:

Apply material at 200 ft²/gal (4.9 m²/L) on dense surfaces. Porous surfaces may require more material.

Allow to dry until tacky to touch, about 15 to 30 minutes. Place new concrete of 1/2" (12 mm) minimum thickness or trowel on new plaster. **Polyweld Bonding Agent & Primer** is formulated to provide exceptional bond when first activated by moisture. **Polyweld Bonding Agent & Primer** will only rewet one time, within 72 hours, after application to develop this bond. In exterior situations where **Polyweld Bonding Agent & Primer** dries before the top coat is applied, check several areas to ensure material will rewet.

Clean-Up:

Clean tools and equipment with detergent and water immediately following use. Clean drips and over-spray with water while still wet. Dried **Polyweld Bonding Agent & Primer** will require mechanical abrasion for removal.

Limitations:

- Keep from freezing.
- Do not apply to frozen or frost filled surfaces.
- Do not over mix or over trowel mixed modified with **Polyweld Bonding Agent & Primer** as this may cause excessive entrapment of air.
- Do not use over water soluble paints or rusted surfaces.
- Do not apply when the surface or air temperature is expected to go below 40°F (4°C) before the **Polyweld Bonding Agent & Primer** dries.

Storage

Store material in its original container. Keep containers tightly closed when not in use. Protect from freezing.

Cautions

May cause skin, eye and respiratory tract irritation. Do not take internally.

Keep out of reach of children.

For Professional use only.

This Product is Formulated and Labeled for Industrial and Commercial Use Only

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