



FARRELL BONDING AGENT

Product Data Sheet

Meets Federal EPA's VOC Requirements

1. PRODUCT NAME

FARRELL BONDING AGENT

2. MANUFACTURER

TK PRODUCTS, DIVISION OF
SIERRA CORPORATION

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3. PRODUCT DESCRIPTION

Farrell Bonding Agent is an acrylic latex liquid bonding agent and an admix (in place of water) for cement mortar patching and resurfacing. Mixed with a cement/sand or gravel combination, it becomes an effective patching and topping mortar having excellent adhesion capabilities and resistance to a abrasion, freeze/thaw cycling, industrial chemicals and deicing salts and chemicals. The mortar produces a strong, durable patch with excellent retention of flexibility and elongation and does not discolor after exterior exposure to heat, cold and aging.

Less water introduced into the mix produces higher density to the mortar, ready workability and less shrinkage. Improved hydration of the concrete is maintained by the barrier action of the polymers, which is particularly important on applications of thin overlays and spray coatings that do not have the moisture retention characteristics of a thicker mortar placement.

Farrell Bonding Agent is economical to use because of its performance, low maintenance costs, savings in material and labor cost and further sealing and curing processes are not required.

Field and laboratory tests prove superior tensile, compressive, flexural shear bond and impact strengths over styrene-butadiene rubbers, polyvinyl acetates and unmodified mortar.

COMPARISON OF WATERMIXED MORTAR VS. FARRELL BONDING AGENT		
STRENGTH	WATER	FARRELL BONDING AGENT
Tensile	235	645
Compressive	2390	5715
Flexural	610	1585
Impact	6	16
Abrasion Res.	23.8%	1.15%*
* = % weight loss; lower value higher resistance		

BASIC USES:

1) An admixture for mortar patching, filling cracks, floor underlayment to level floors before tiling, precast building panels and beams, pavement and bridge deck repairs, setting pipes, spray and fill coats.

2) A bonding agent for plaster, stucco, cement and slurry coats. Apply concrete repair to "wet" Farrell Bonding Agent. If Farrell Bonding Agent is allowed to dry it will act as a bond breaker. Apply additional coat of Farrell Bonding Agent which will allow bonding agent to be tacky.

3) An admix for cement base plaster and stucco mixes and base coats to reduce cracking and improve curing.

Installations:

Use on many substrates including old concrete, brick, masonry, terrazzo, wood, metals, glass and others.

Composition and Materials:

100% acrylic polymers in a water dispersion.

Limitations:

Protect from freezing; repeated freezing and thawing can cause instability and sedimentation. Not recommended for use with air entraining additives. Apply in temperatures of 45° F and above. Do not allow Farrell Bonding Agent to dry completely, prior to placing repair material.

4. TECHNICAL DATA

- Solids Content: 28%, nonflammable; no disagreeable odor.
- Dry Time: Normal use allow 24 to 48 hours. Heavy traffic allow 4 days.
- Viscosity: Slightly thicker than water.
- Potlife: 1 - 2 hours
- Set Time: 4 - 6 hours, (Typical sand/cement mix).
- Applicable Standards: ASTM C-1059, C-190, 109, 348 and 321
- Exceeds the requirements of ASTM C1059, Standard Specification for Latex Agents for Bonding Fresh to Hardened Concrete.
- A.I.M. Category: Primers and Undercoaters
- A.I.M. Definition: Primer-A coating formulated and recommended for application to a substrate to provide a firm bond between the substrate and subsequent coatings. Undercoater - A coating formulated and recommended to provide a smooth surface for subsequent coatings.
- VOC Content Limit: 350 grams per liter.

5. APPLICATION PROCEDURES

Preparation:

Remove all loose and/or crumbled material from area to receive the mortar. Sweep or airblow to remove as much dust as possible. Grease and oil stains should be removed with TK-101 Chemical Cleaner or other suitable cleaner. Rinse thoroughly; do not leave pools of water. Patch area should be free of frost.

Coverage:

Approximately 300 SFPG when used as a bonding agent.

Mixing:

Use clean, dampened containers and clean, dry sand in the cement mix. Thoroughly premix the sand/aggregate or gravel with the cement. Blend the Farrell Bonding Agent into the cement mix, stirring slowly. Typical mixes for 1 gallon Farrell Bonding Agent: 1 - 3 cement mix, 45# bag

Farrell Equipment & Supply Co., Inc.

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Eau Claire, WI 54703

LA CROSSE

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888-533-0909
508 Monitor Street
La Crosse, WI 54603

MADISON

608-222-5372
888-533-7909
2300 Kilgust Road
Monona, WI 53713

ROCHESTER

507-252-0234
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1635 3rd Avenue S.E.
Rochester, MN 55904

WAUSAU

715-355-8300
800-933-5939
7405 Commerce Drive
Weston, WI 54476

packaged sand mix; graded gravel mix, 80# bag packaged sand mix. Suggested resurfacing mixes per 1 gallon Farrell Bonding Agent.

Depth (Inches)	Sharp Masons Sand	Portland Cement
0 - 1/8	20 lbs.	20 lbs.
1/8-3/8	40 lbs.	20 lbs.
3/8 - 1	60 lbs.	20 lbs.

Repair Work:

When used as a bonding agent for patch repair or overlayment, saturate the area with Farrell Bonding Agent and place the mortar while the bonding agent is still in a tacky state. DO NOT allow it to dry before placing the mortar. Use a wet trowel, cleaning it frequently. DO NOT use a heavy pressure; polymer modified concrete cannot be worked as hard as a pure sand/cement mortar due to wet drag and surface skin formation. Over troweling results in floating the solids to the surface or in treating away the surface skin.

When necessary, the surface can be refinished with a trowel approximately 15 min. after initial placement. Retemper the surface with a one to one blend of water and Farrell Bonding Agent. Sprinkle this liquid on the surface with a fine bristled brush, then trowel LIGHTLY.

On large areas, screed the mix with a narrow metal straight edge, keeping a buildup of the mortar in advance of the edge; use a short vibratory stroke to achieve the smoothest surface. Two screeds working together (first one as a rough strike off, the second to give the final surface finish) will reduce the possibility of surface skinning and will provide a smoother finish.

Note 1:

All polymer modifier emulsions for cement have a minimum film forming temperature. Below such temperatures, the polymers will not bind together. Also, high humidity, high temperatures and windy conditions can affect the potlife and cure time; when this occurs, a small amount of water can be added to keep the mortar surface with wet burlap to retard too rapid drying and to prevent surface cracking.

Cleanup of Equipment: Trowels and

containers can be cleaned with water; flush sprayers with water.

Precautions:

Farrell Bonding Agent Liquid Bonding Agent contains acrylic resins and a minimal amount of ammonia.

First Aid:

Ingestion: Induce vomiting; call physician immediately. Eye contact: Do not rub, flush with clear water. Skin contact: Flush with clear water. Call physician if eye or skin irritation persists. KEEP OUT OF REACH OF CHILDREN N.

For safety control, Material Safety Data Sheets are available from the Farrell Equipment & Supply Co., Inc. Stores or the Farrell Equipment Website. This information should be read before using this product.

6. AVAILABILITY

Farrell Bonding Agent is packaged in 55 gallon drums, 5 gallon pails and 1 gallon containers and is available through Farrell Equipment & Supply Co., Inc.

7. CONDITIONS OF SALE / LIMITED WARRANTY.

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8. TECHNICAL SERVICES

Farrell Equipment & Supply Co., Inc. offers assistance with specifications, performance test data and field services.

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FOR INDUSTRIAL USE ONLY

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