

eco2 DEEP PATCH™



PRODUCT DESCRIPTION

ECO2 DEEP PATCH™ is a silica sand-free, lightweight, fast-setting/ fast-curing, ultra-creamy, calcium aluminate cement-based, high-performance patching and leveling compound. When mixed exclusively with ECO2 DEEP PATCH ADDITIVE™, the product is used to patch, level and fill cracks, depressions, voids and holes in substrates up to 1" (25 mm) deep. ECO2 DEEP PATCH is also 30% lighter than traditional patching compounds.

Green Features

- **51% recycled content (11.2 lb per 22 lb bag)**
- **100% silica sand-free**
- **pH 11 in wet-state (eco-friendly for installers)**
- **Solvent-free - no VOCs**
- **Improves indoor air quality compared to Portland cement-based products**
- **Will not promote mold, mildew or bacteria growth**
- **Contributes to LEED® and WELL® objectives and requirements**

Performance Features

- 30% lighter than traditional patching compounds
- 22 lb (10 kg) bag has the same coverage as a 40 lb (18 kg) bag of traditional patching compound due to lightweight content
- No change to installation method
- **FAST SETTING:** install flooring after only 60 - 90 minutes (thin application)
- Ultra-creamy consistency
- Apply from featheredge up to 1" (25 mm) in a single application indoors, and up to 1/4" (6 mm) outdoors
- Mix only with ECO2 DEEP PATCH ADDITIVE
- Hydraulic Calcium Aluminate cement
- Usable over concrete and exterior-grade plywood surfaces
- Performance exceeds requirements for interior institutional, commercial and residential applications
- Accepts all setting materials, adhesives, and floor coverings
- Can be applied over substrates up to 95% RH per ASTM F2170
- Blocks pH on substrates with up to 90% RH when installed at 3/16" thickness or greater

Packaging

22 lb (10 kg) bag (same coverage as a 40 lb [18 kg] bag of traditional patching compound due to lightweight content)

Suitable Substrates

- Dry, cured concrete (28 days old). For concrete substrates less than 28 days old, please contact technical service
- Cement backer units (CBU)
- Cementitious Terrazzo floors[†]
- Exterior Grade Douglas Fir Plywood, certified CANPLY (SELECT) or (SEL-TF) CSA 121, for INTERIOR Residential Floors in dry areas only[†]
- Resin-based floor coverings (epoxy, urethane, or polyurethane)[†]
- Epoxy Moisture Management Systems[†]
- Metal such as steel, copper, stainless steel, aluminum, or lead[†]
- Well bonded existing ceramic and quarry tiles, porcelain, granite, and marble[†]
- Well bonded existing VAT and VCT tiles, and non-cushioned vinyl sheet goods[†]
- Well bonded old cut-back adhesive residue and water-soluble adhesive residues[†]

[†] Prime first with ECO2 PRIMER™ for non-porous substrates (refer to technical data sheet for details).

NOTE: Perform a bond test over questionable substrates to ensure compatibility and performance. It is the applicators responsibility to determine use.

Limitations

- For INTERIOR installations only.
- Do not use at temperatures below 50°F (10°C) or above 95°F (35°C)
- Do not apply directly over particleboard, chipboard, presswood, Luan, masonite, OSB, or other dimensionally unstable materials
- Allow the patching compound to dry properly prior to installing the floor covering
- Do not install over moving control joints, active cracks, or expansion joints
- Do not use where excessive moisture/hydrostatic conditions, and/or recurring moisture problems exist
- Do not use in places subject to immersion
- Do not add additional ECO2 DEEP PATCH ADDITIVE to the mix once it begins to thicken
- Do not add sand or water to the mix
- Protect from any direct air ventilation or heat radiation source, such as direct sunlight, during and after the installation for a minimum of 24 hours
- **Do not accelerate curing time by using ventilators or heating appliances**

TECHNICAL DATA

Applicable Standards

For Additional Information, please refer to the most recent TCNA handbook for ceramic tile installation or the TTMAC Specification Guide 09 30 00 Tile Installation Manual, or visit our website at www.eco2level.com.

WORKING PROPERTIES (@73°F [23°C] and 50% RH)

Working time	15 minutes
Final set	45-60 minutes
Time before installing floor covering:	1-3 hours
Time before installing ceramic tile:	1-3 hours

PHYSICAL PROPERTIES (@73°F [23°C] and 50% RH)

VOC content	0 g/L
Recycled content	51% (11.2 lb per 22 lb bag)
Silica sand content	0%
Silica quartz content	< 0.5%
Volume change (meets ASTM C-928) @ 28 days, dry cured	< -0.05%
Flexural strength (ASTM C-348) @ 28 days	> 1,000 psi (> 6.9 MPa)
Tensile bond strength (ASTM C1583 / CSA CAN/A23.2-6B) @ 28 days	> 300 psi (2 MPa)
Compressive strength (ASTM C-109)	
3 hours	> 1,500 psi (10.3 MPa)
28 days	> 4,000 psi (27.6 MPa)
28 days-dried weight	1.5 lb per ft² x 1/4" thick (7.1 kg per m² x 6 mm)
Wet density	1.1 g/mL
Approximate coverage per 22 lb (10 kg) bag	
Thickness	Coverage
1/8" (3 mm)	40 ft² (3.7 m²)
1/4" (6 mm)	20 ft² (1.9 m²)
1/2" (13 mm)	10 ft² (0.9 m²)
Shelf life	
6 months if kept in its original unopened packaging and stored in a dry location.	

INSTALLATION

Surface Preparation

- All supporting surfaces must be structurally sound, solid and stable.
- Surfaces must be clean and free of dust, oil, grease, paint, tar, wax, curing agent, primer, sealer, form release agent or any deleterious substance and debris which may prevent or reduce adhesion.
- Acids, concentrated alkaline conditions and cleaning chemical residues must be neutralized or removed.
- All concrete substrates must be solid, sound, slightly textured and have a direct tensile cohesive strength greater than 175 psi (1.2 MPa) when tested in accordance with ACI 503 R - (Appendix A) procedure.
- On grade or below grade concrete slabs must be installed over an effective vapor barrier.
- All concrete substrates must be dry and free of hydrostatic conditions and/or extreme moisture problems. Do not prime, repair, level or patch the substrate, or install any floor covering materials until moisture problems and conditions have been addressed to meet finished flooring manufactures requirements. Please contact our Technical Service Department for appropriate recommendations.
- Non-porous surfaces must be primed with ECO2 PRIMER™.
- Priming extremely porous substrates with ECO2 PRIMER™ or ECO2 DEEP PATCH ADDITIVE™ will improve the application properties of ECO2 DEEP PATCH™. Please contact our Technical Service Department for appropriate recommendations.
- Wood substrates should be solid and free of contamination. (Refer to ANSI A108. 01 requirements for Plywood sub-floors)
- Existing Gypsum and light-weight concrete surfaces must be properly primed with ECO2 PRIMER™ or ECO2 DEEP PATCH ADDITIVE™ (see respective technical data sheet for details).
- Existing concrete slabs with old cutback adhesive or carpet adhesive residues must be scraped, roughened, cleaned, properly prepared and PRIMED prior to the application of the patching compound. (Refer to the ECO2 PRIMER™ or ECO2 DEEP PATCH ADDITIVE™ technical data sheet for full details or contact our Technical Service Department for appropriate recommendations).
- Existing ceramic tile, VCT or hard to bond to surfaces should be PROPERLY PREPARED, CLEANED and PRIMED with ECO2 PRIMER™ prior to the application of the patching compound. (Refer to ECO2 PRIMER™ technical data sheet for full details or contact our Technical Service Department for appropriate recommendations)

NOTE: Scrape off as much as possible of the old cut-back adhesive.

Do not use sweeping compounds. This could leave an oily film on the concrete surface that will prevent a proper bond.

Mixing

Mixing ratio: 3 1/4 parts powder to 1 part latex (by volume)

1. Use clean mixing-tools and containers.
2. In a clean mixing container, measure and pour 0.9 US gal / 3.65 US quarts (3.45 L) of ECO2 DEEP PATCH ADDITIVE and gradually add 22 lb (10 kg) of ECO2 DEEP PATCH™ powder mix, while mixing slowly.
3. Using a low-speed mechanical mixer (150 - 300 rpm), mix until a homogeneous, smooth, lump-free, consistency is achieved.
4. The product is now ready for application.
5. Use the product within the shortest possible delay (within a few minutes).

Application

ECO2™ offers expert jobsite inspections for all applications to help ensure every project is a complete success.

Contact ECO2™ Technical Services for complete details.

NOTE: Protect from any direct air ventilation or heat radiation source, such as direct sunlight, during and after the installation.

1. Spread ECO2 DEEP PATCH™ immediately after mixing with the flat side of a trowel to the desired texture and finish.
2. Do not mix more material than can be used in a 15 minute period.
3. Do not add any water or ECO2 DEEP PATCH ADDITIVE once the mixture has hardened.

For more detailed information on ways to apply this product, please contact our technical department for proper recommendations and job field assistance.

Curing and Protection

- 1-3 hours at room temperature (foot traffic).
- Install floor covering after 1-3 hours, up to 24 hours for thicker applications.
- Material should be completely dry prior to applying the floor covering adhesive.
NOTE: Drying time may vary depending on the temperature and humidity level. Do not attempt to accelerate drying and curing through forced ventilation, fans or heatblowers.
- Protect from traffic and dust until floor covering is completely installed.

Cleaning

Clean tools and hands with water while the product is still fresh.

Health and Safety

Refer to the Safety Data Sheet (SDS) for complete details.

AVAILABILITY AND COST

Contact ECO2™ for availability and cost.

WARRANTY

ECO2™ warrants that this product is manufactured using quality raw materials and is of merchantable quality and suitable for the purpose for which it was intended. ECO2™ liability under this warranty shall be limited to the replacement of its product proven to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising from the use of/or the inability to use this product.

FILING SYSTEM

Additional information is available upon request, or by visiting www.eco2level.com.

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