

# AccuLevel™

## AccuLevel SD30

### **Cementitious Underlayment for Corrugated Steel Construction Assemblies**

- ✓ Formulated and tested specifically for applications involving fire-rated corrugated steel deck construction.
- ✓ Lighter and thinner than concrete: AccuLevel® SD30 can be poured as thin as 1" over the top of the fluting in the corrugated deck, and weighs as little as 12.8 lb per square foot (over a 9/16" fluted deck).
- ✓ Unique formulation with enhanced performance characteristics to deliver a dense, smooth, high compressive strength substrate suitable for a wide array of floor coverings.
- ✓ Installed by a network of licensed contractors.
- ✓ Mixed on site with approved sands to deliver compressive strengths up to 5,000 psi.
- ✓ Self-sealing and low porosity formulation enables direct-bonded floor coverings, in many cases without the use of a surface sealer.
- ✓ Suitable for sheet goods, VCT, tile and stone, wood, or carpet.
- ✓ Fast setting, quick application, means floors are returned to service the following day. Ready for light trade traffic within hours and normal trade traffic within 24 hours.
- ✓ Approved for use with AccuQuiet® Sound Deadening Mats. Contact an
- ✓ AccuLevel® technical representative for details.
- ✓ Approved for use with hydronic heating systems for radiant floor heating over corrugated galvanized steel deck construction assemblies.

### **Description and Benefits**

AccuLevel® SD30 is a premium polymer modified cementitious underlayment. With high flow character, the product is pumpable and fast applied without the need for troweling, and is designed to deliver a smooth monolithic surface over corrugated steel construction assemblies. Thinner and lighter than conventional concrete, AccuLevel® SD30 removes weight from the construction assembly, thereby reducing the overall cost of structural reinforcement. With mix designs offering minimum compressive strengths up to 5,000 psi, AccuLevel® SD30 delivers a hard smooth surface suitable for a vast array of floor covering options.

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### Uses and Limitations

- ✓ Minimum Steel Deck Standards: Minimum 22 gauge galvanized steel deck with minimum flute depth of 9/16.
- ✓ Deflection Limits of the Structure: Live and dead loads considered, L/360 minimum. Deflection limits of the decking material: L/480. More restrictive deflection limits may be required by some types of floor goods. Contact the floor covering manufacturer for minimum specifications.
- ✓ Minimum Assembly Construction Criteria: Reference the Underwriters Laboratories Fire Resistance Directory for a full description of minimum criteria for each individual fire rated design.
- ✓ When used with hydronic heating systems, **AccuLevel®** SD30 must be poured to a thickness of ¾" above the top of the tubing or 1" above the top of the flutes in the metal deck, whichever is greater.
- ✓ Curing and Drying time before application of floor goods depends on thickness, humidity and ventilation conditions. At an average thickness of 1.25", **AccuLevel®** SD30 can typically be covered in 10-14 days. Thicker pours, humid conditions, and pour ventilation will require more extended drying times.
- ✓ **AccuLevel®** SD30 is for interior use only and should not be used in areas where extended or repetitive exposure to moisture is anticipated unless protected by a waterproofing system.
- ✓ **AccuLevel®** SD30 is permeable to moisture vapor. In cases where moisture vapor drive is anticipated, such as over a crawl space or below grade, a moisture vapor barrier is recommended.
- ✓ **AccuLevel®** SD30 is approved for pedestrian foot traffic and light rubber wheeled traffic.
- ✓ **AccuLevel®** SD30 is not a structural cement and will crack where excess substrate deflection or dynamic loads that exceed the deflection limit of the substrate. Additional reinforcement is recommended where high dynamic loading is anticipated.
- ✓ **AccuLevel®** SD30 should not be used to bridge moving cracks or expansion joints. All joints must be honored through to the substrate.
- ✓ **AccuLevel®** SD30 is not a wear surface.
- ✓ Finished floor covering manufacturer recommendations supersede all others.
- ✓ The interior of the building must be enclosed, protected from sun and wind, and a minimum temperature of 50°F must be maintained during the installation and for a period of seventy-two (72) hours after the installation of the **AccuLevel®** SD30.

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### Uses and Limitations

- ✓ The substrate must be indoor, clean, dust and contaminant free. Any loose or weak material present on substrate must be mechanically removed.
- ✓ **AccuLevel®** SD30 is highly flowable. The perimeter, mechanical and plumbing penetrations, and other gaps in the substrate must be sealed to prevent leaks.
- ✓ Prior to pouring **AccuLevel®** SD30, an approved priming system for galvanized steel must be used. Consult an **AccuLevel®** technical representative on the proper priming system.
- ✓ Do not allow foot traffic until the product is fully hardened, usually within 4 hours of placement.
- ✓ **AccuLevel®** SD30 is self-curing and does not require curing compounds, but should be protected from excessive draft for the first 24 hours. After this time, ventilate the area to expedite the curing process and to aid in the removal of excess moisture from the building. In general, a thickness of 1.25" requires 10-14 days to fully cure and dry. These times will vary with humidity, temperature, and ventilation conditions.

### Preparation for Floor Coverings

- ✓ For moisture sensitive floor coverings, test the underlayment prior to installation by the plastic sheet method per ASTM D-4263. If visible signs of moisture are present, then more curing time is required. Do not test **AccuLevel®** SD30 for dryness using the calcium chloride method, ASTM F-1869, as inaccurate results will occur.
- ✓ Once the **AccuLevel®** is fully dry and has passed a dryness test, the application of a surface sealer is recommended prior to the installation of all glue down or thin set finished flooring. All instructions or recommendations by the finished floor goods manufacture supersede this recommendation. For tile and stone installations, a water proofing and crack isolation membrane is recommended but not required. Consult an **AccuLevel®** technical representative for additional details.
- ✓ Wear a NIOSH approved dust mask and provide ventilation when mixing the product.

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### Physical Properties

Color	Color Gray Powder
Flow Properties	High flow with self-leveling properties
Water Per Bag	3 – 4.25 US Gal./ 80 lb, depending on desired slump and sand moisture content
Sand Per Bag	0.80 – 1.40 ft <sup>3</sup> of washed mason or concrete sands meeting <b>AccuLevel®</b> minimum gradation criteria
Compressive Strength	(ASTM C472): up to 5,000 psi, depending on mix design, sand gradation, and water content
Dry Density	115-125 lb/ ft <sup>3</sup>

### UL Designs

G577, G578, G579, G580, G581, G582. Additional designs may be available. Contact an **AccuLevel®** technical representative for the most current fire rated design information.

### Submittal Approvals

Minimum Compressive Strength: \_\_\_\_\_

Project Name: \_\_\_\_\_

Architect: \_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_

Contractor: \_\_\_\_\_

Date: \_\_\_/\_\_\_/\_\_\_

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