



Premium Self Leveling Compound

# UZIN NC 170 LevelStar

Self-drying cementitious leveling compound. Provides extremely smooth finish without depth limitations.

**Description:**

Premium low stress, self leveling underlayment and smoothing compound for all types of interior floor covering work. May be used as a topping provided a suitable wear surface sealer or coating is applied. For interior use only.

**Suitable for/on:**

- ▶ Producing level, absorbent, flat and smooth surfaces for virtually all types of floor coverings including wood, carpet, sheet vinyl, VCT, PVC, linoleum, cork, rubber, polyolefin, ceramic tile and natural stone
- ▶ A smoothing layer over structurally sound concrete above, on or below grade, in new construction or renovation projects. May be used over cast in place or precast concrete
- ▶ A smoothing layer over existing hard surface flooring such as well bonded terrazzo, ceramic tile, stone and well bonded epoxy coatings
- ▶ New, structurally sound, OSB underlayment or equally rated subfloor materials
- ▶ Existing substrates, including thin and dense non water soluble adhesive residues on concrete including cutback adhesive residues (see "Important Notes")
- ▶ High stress loads in residential, commercial and industrial locations, such as hospitals, shopping centers and industrial facilities
- ▶ Radiant floor heating systems, (hydronic or electric)

**Product Properties:**

Highly modified polymer premium leveling compound with special raw material technology known as the Level Plus Effect. The Level Plus Effect with super condensers provides exceptional flow characteristics and a very smooth, uniform surface appearance promoting an increased adhesive coverage rate. The special advantage of UZIN NC 170 LevelStar is the ideal combination of multipurpose use, the best application properties, highest strength development and load bearing capacity. UZIN ÖkoLine® is a system of tested and approved installation materials based on the principles of neutral odor and clean indoor air (see "Protection of the Workplace and the Environment").

**Composition:** Special cements, mineral fillers, polyvinyl acetate copolymers, flow agents and additives.



**Features**

- Level Plus Effect
- No depth limitation
- Pumpable
- Fast setting
- Very smooth surface
- Low stress
- Shear resistant under wood flooring
- Very high compressive and tensile strengths
- Exceptionally fine aggregates
- Significantly longer working time
- Meets strict EMICODE EC 1 R PLUS criteria
- Compliant with California Sect. 01350 specification

**Benefits**

- Superior flow characteristics
- Very versatile
- Minimizes time and effort
- Accelerates floor covering installation
- Improves adhesive coverage rate
- Ability to cover difficult substrates
- Suitable for all glue down wood applications
- Exceeds most flooring requirements for suitable surface
- Allows NC 170 LevelStar to obtain a true feather edge and can be used as a skim coat
- Greater jobsite flexibility
- Healthy indoor air quality
- LEED V4 contributing product

**Technical Data**

Packaging:	50 lb. (22.7 kg) paper bag
Storage:	minimum 6 months
Water ratio:	refer to product packaging
Color:	grey
Coverage rate: (approx.)	30 sq. ft. at 1/4" depth per 50 lb. bag (2.78 m <sup>2</sup> at 6 mm depth per 22.7 kg bag) actual coverage may vary depending on substrate conditions
Working temperature:	min. 60°F (16°C) at floor level
Working time:	20 – 30 minutes*
Set to foot traffic:	after approx. 2 hours*
Ready for covering:	after approx. 15 hours*
Compressive strength	5300 psi after 28 days (ASTM C109M-12)
Flexural strength	1100 psi after 28 days (ASTM C348-08)

\* At 70 °F (21 °C) and 65% relative humidity. Depth of application and surface porosity will affect dry time.

## Substrate Preparation:

The subfloor must be structurally sound, solid, dry, free from active cracks, clean and free of all contaminants such as grease, oil, paint, wax, curing and sealing compounds that would impair adhesion. Test the substrate in accordance with applicable standards relative to moisture content. Any weakly bonded or soft surface material such as loose adhesive residues, leveling compounds, floor coverings or coatings must be removed by shot blasting, abrading, grinding or wet scraping. Thoroughly vacuum off all loose material or dust. **CAUTION: Do not sand or grind adhesive residue, as harmful dust may result. Inhalation of asbestos dust may cause asbestosis or other serious bodily harm. Refer to the Resilient Floor Covering Institute's publication "Recommended Work Practices for Removal of Resilient Floor Coverings" for instructions.** Select a suitable primer from the UZIN Product Guide according to surface type and condition or seek technical assistance. Allow primers to dry thoroughly. As with all polymer modified cements, it is always recommended to test for moisture content of the existing substrate to ensure that it meets the floor covering manufacturer's requirements. Cement based products are not designed to be used as moisture barriers. Moisture mitigation must be addressed prior to the application of UZIN NC 170. Select a suitable UZIN moisture vapor retarder.

Before applying UZIN NC 170 over plywood/OSB flooring, the use of UZIN RR 201 substrate reinforcing mesh is required on top of the primed surface. UZIN NC 170 must be installed to a minimum 1/4" (6 mm) depth over UZIN RR 201 (please see UZIN RR 201 product data sheet for additional installation instructions). Excessive movement within the subfloor may lead to hairline cracks at plywood joints.

For additional information regarding subfloor preparation, please refer to the UZIN "Substrate Preparation Guide".

## Application:

1. Pour required amount of cold, clean water into a clean container (refer to product packaging for water ratio). Slowly pour in the powder whilst stirring vigorously for 60 seconds or until blended to a viscous lump free consistency. Use a heavy-duty drill with the UZIN leveling compound mixer attachment (minimum 650 rpm). Do not overwater.
2. Pour the mix onto the primed substrate and distribute evenly with an UZIN Smoothing Trowel or the UZIN Gauge Rake. For thicker coats or when using a smoothing trowel, flow and surface finish can be improved by using the UZIN Spike Roller. Where possible, apply to the desired depth in one application. A minimum depth of 1/8" (3 mm) is required for exposure to castor wheels and on non absorbent surfaces. When applying over UZIN 1-component polyurethane or 2-component epoxy moisture vapor retarder, always prime surface with UZIN PE 280 or grit bind with sand.

Refer to the floor covering manufacturer regarding the maximum allowable substrate moisture content and qualify the substrate prior to installing UZIN NC 170 LevelStar.

Always install adequate test areas including the finish flooring, to determine the suitability for the intended use. As floor coverings vary, always contact and rely upon the floor covering manufacturer for specific directives, such as maximum allowable moisture content, adhesive selection and intended end use of the product.

## Leveling Application Tools:



## Important Notes:

- ▶ Storage: minimum 6 months in original packaging when stored in dry conditions. Tightly reseal opened packaging and use the contents as quickly as possible.
- ▶ UZIN NC 170 LevelStar contains Portland Cement. See: "Protection of the Workplace and the Environment".
- ▶ Optimum application conditions are 60 – 77°F (16 – 25°C) and relative humidity below 65%. Low temperatures, high humidity and greater depth will delay, while high temperatures and low humidity will accelerate the setting, drying and readiness for installation of finish floor covering. In summer, store in cool conditions and mix with cold water.
- ▶ Expansion, movement and wall connection joints must be honored through the floor covering. Where necessary, fit UZIN Expansion Strips to any structures to prevent the mix from flowing into connection joints. For depths greater than 1/4" (6 mm) expansion strips are highly recommended.
- ▶ Pumpable using continuous feed mixer pumps.
- ▶ For information regarding sand extension with UZIN NC 170 LevelStar, please call the UZIN Technical Dept.
- ▶ Minimum 1/8" (3 mm) depth is required for exposure to castor wheels.
- ▶ If pouring multiple layers of leveling compound, allow product to completely dry. Apply UZIN PE 260 diluted 1:3 as an intermediate primer between applications. Allow UZIN PE 260 to dry to a clear, transparent, almost tack free film (refer to the UZIN PE 260 product data sheet for dry times). Once primer has dried, apply next layer of UZIN NC 170 LevelStar. Each subsequent layer should not exceed the depth of the previous layer.
- ▶ For depths greater than 1/2" (12.5 mm) on surfaces that are moisture sensitive or weak (old adhesive residues), first apply a suitable UZIN 2-component epoxy moisture vapor retarder gritted with a broadcast of sand.
- ▶ Do not use in exterior or wet areas.
- ▶ On substrates with old cutback adhesive residues, it is recommended to remove as much residue as possible by mechanical means before coating with an UZIN Primer. Call the UZIN Technical Dept. for assistance.
- ▶ **NOTE:** Complete mechanical removal of cutback adhesive such as shot blasting, grinding or sanding can be hazardous as old adhesive may contain asbestos. Do not sand or grind adhesive residues. Harmful dust may result. Inhalation of asbestos dust may cause asbestosis or other serious bodily harm. Please consult applicable government agencies for rules and regulations concerning removal of flooring or adhesives containing asbestos. The use of solvents or adhesive removers are never recommended.
- ▶ Protect freshly applied leveling compounds from drafts, direct sunlight and direct sources of heat.
- ▶ The following standards, regulations and notices are applicable and especially recommended:
  - ASTM F710-11 "Standard Practice for Preparing Concrete Floors To Receive Resilient Flooring".
  - ASTM C109M-12 "Test method for compressive strength of hydraulic cement mortars"
  - ASTM F1869-11 "Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride"
  - ASTM F2170-11 "Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes"

## Protection of the Workplace and the Environment:

### PRECAUTIONS:

**CAUTION:** Irritant. Contains cement. Keep out of reach of children. Cement produces strong alkaline on reaction with water. Avoid contact with skin and eyes. When mixing wear a protective dust-mask. Use protective gloves and wear safety glasses or goggles.

**FIRST AID:** In case of skin or eye contact, rinse thoroughly and immediately with water. In the event of skin or eye irritation, obtain medical treatment. Observe safety information on product label as well as MATERIAL SAFETY DATA SHEET (MSDS). Presents no physiological or ecological risk when fully cured. EMICODE EC 1 R PLUS – very low emission – healthy indoor air quality.

**WARNING:** This product contains chemicals (crystalline silica) known to the state of California to cause cancer and birth defects, or other reproductive harm.

**DOT UN-Number:** Not regulated

**Hazard Class /PG:** Not regulated

## Disposal:

Dispose of empty packaging according to local, state and federal regulations. Hardened product residues are considered construction waste. Therefore collect waste material, mix with water and allow to harden, then dispose of as construction waste. Empty paper bags are recyclable.

The above information is based on our experience and testing. UFLOOR Systems is not responsible for the variety of associated materials and variable construction and working conditions that occur on jobsites. The quality of your work depends on your own professional judgment and product usage. If in doubt of any application recommendation or instruction, conduct a small test or obtain technical advice. Observe the installation recommendations of the floor covering manufacturer. The publication of this Product Data Sheet invalidates all previous product information.