



Technical Data Sheet

ASO[®]-NM15

Art.-No. 2 04297

Levelling compound up to 30 mm

Properties:

- Polymer modified
- For interior areas
- Very low emissions
- Low stress
- Self levelling
- Easy to use
- Rapid hardening
- Suitable for heated screeds
- Pumpable
- For thicknesses from 2 to 30 mm

Areas of application:

ASO-NM15 is used for smoothing, filling and levelling at thicknesses from 2 – 30 mm. ASO-NM15 is particularly suitable for levelling calcium sulphate based substrates. Suitable substrates are calcium sulphate and cement-based screeds including heated screeds conforming to DIN 18560, old soundly bonded tiled finishes, poured asphalt of hardness class IC10. ASO-NM15 is used in dry areas and can also be used beneath the waterproof membranes AQUAFIN-2K/M and AQUAFIN-2K in rooms where the wet duty demands are low (wet duty classifications 0 and A01 in accordance with the ZDB information sheet [*1]). Not suitable as a wearing surface without additional and appropriate coatings.

Technical Data:

Basis:	calcium sulphate, aggregate, additives
Colour:	grey
Bulk density:	1.4 kg/dm ³
Application/ substrate temp:	+5° C to +25° C Ideally +18° C to +25° C
Pot life *1):	30 minutes
Foot traffic after *1):	approx. 3 – 4 hours
Compressive strength *1):	approx. 25 N/mm ² after 28 days

Flexural strength *1):	approx. 7.5 N/mm ² after 28 days
Classification:	EN 13813 CA-C20-F7
Fire rating:	A2fl-S1
Cleaning:	with water whilst in the fresh state
Consumption:	approx. 1.7 kg/m ² /mm
Storage:	dry, 6 months in the original unopened packaging. Use opened packaging promptly.
Packaging:	25 kg bags with PE liner

*1) The values refer to +23° C and 50% relative humidity. Higher temperatures accelerate and lower temperatures extend the hardening time.

Surface preparation:

The substrate must be dry, load bearing, sound, have a good key and be free from materials that act as separating media. The substrate must be adequately load bearing to take loads in accordance with DIN 1055. Separating layers, laitance and similar must be removed by suitable mechanical means e.g. planing, shot / sand blasting or scabbling. Vacuum the dust created. There must be no moisture from the substrate or on the surface.

Test the readiness of the substrate to receive ASO-NM15 with a carbide hygrometer (CM device) before application. The CM moisture content for cement-based screeds must not exceed 2.0%. The CM measurements are to be carried out in accordance with the current FBH-AD work instructions from the technical information on the coordination of cut out points in heated floor construction.

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Product application:

1. Calcium sulphate and cement-based screeds / heated screeds. Prime with ASO-Unigrund-GE. Allow ASO-Unigrund-GE to fully dry (approx. 6 – 12 hours * 1), because then the porosity of the substrate is reduced and therefore the flow properties of ASO-NM15 are retained. Subsequently apply ASO-NM15.

With poured asphalt of hardness class IC10 levelling coats up to a maximum of 10 mm are possible.

There must be a 10 – 15 mm movement joint within the asphalt screed around all interruptions in the floor and these must be carried through in the final floor finish. The surface must be continuously abraded with quartz sand.

Well bonded ceramic finishes. Clean, abrade and prime with ASODUR-SG2 blinding the surface with 0.5 – 1.0 mm quartz sand. Vacuum up excess once cured.

2. Place 5.5 – 6.0 litres of clean water in a clean mixing bucket, dependent on desired consistency, sprinkle in 25 kg of ASO-NM15 and mix to a lump free, flowable consistency. Occasionally scrape a trowel around the wall of the mixer to blend in unmixed material that has stuck to the sides. Mix through once again. It is recommended that a drill be used at 500 – 700 rpm using a Collomix paddle of type KR140 to 160.

3. Pour ASO-NM15 onto the primed substrate and, within the working time, spread evenly with a suitable implement (surface rake, long handled rake). It has proven to be advantageous to place height markers so that the desired thickness can be controlled with the product in the wet state. The required thickness should be installed in one operation. De-aerate the coating with a spiked roller (or other suitable tool) whilst still fluid and to encourage flow; the surface and the flow will be decidedly improved.
4. Whilst it is setting protect ASO-NM15 from rapid water loss e.g. high room temperatures, direct sunlight and draughts. The air temperature and the material / substrate temperature should not drop below +5° C during application and in the following week.
5. Where thicknesses are < 15 mm, ASO-NM15 can be tiled after approx. 16 hours * 1) if UNIFIX-AEK is used as the adhesive. Where thicknesses are ≥ 15 mm or where other types of finishes are to be installed or where alternative tile adhesives are to be used, it is necessary to measure the residual moisture with a carbide hygrometer (CM device) – see advice section. Keep to the maximum recommended moisture levels detailed in the current data sheets. Also refer to the advice section.

Priming table

Calcium sulphate screeds	ASO-Unigrund-GE
Cement-based screeds	ASO-Unigrund-GE
Poured asphalt screeds of hardness class IC10	With new, clean substrates it is not necessary, to bind construction dust with ASO-Unigrund-GE
Sound tiled finishes, terrazzo	ASODUR-SG2 blinded with quartz

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Important advice:

- Instead of ASO-Unigrund-GE, ASO-Unigrund-K diluted 1:3 with water can also be used.
- If water is lost too quickly there is a risk of cracking (heated rooms or very porous substrates).
- It is necessary to ventilate the construction site. Avoid draughts as well as direct sunlight when working with the product and during the curing process. The interior and floor temperature must be a minimum of +5° C during application and for the following week. Dehumidifiers may not be used for the first 3 days.
- The condition of the substrate is essential to the success of the floor smoothing process. Porous substrates negatively alter the flow properties of the levelling compound, therefore the substrate must be thoroughly prepared: clean and prime.
- Completely remove old linoleum adhesives (lignum / lignin pastes, sulphite liquor based adhesives). Small amounts of water soluble dispersion-based resilient flooring adhesives (surface area $\leq 25\%/m^2$) may be left on the substrate. Clean the substrate, prime with ASODUR-SG2 and blind with 0.5 – 1.0 mm quartz sand and vacuum the excess once cured.
- Old water resistant resilient flooring adhesives must be largely removed by mechanical means, cleaned, primed with ASODUR-GBM or ASODUR-SG2 and blinded with 0.5 – 1.0 mm quartz sand and the excess vacuumed once cured. Alternatively prime with undiluted multi purpose primer MG-17.
- When using a mixing pump e.g. PFT G4 or G5 or similar, the mixing pump and pipework must be rinsed out during interruptions in the application process.
- When using a PFT G4 mixing pump with the standard PFT G4 mixing screw, the D 6-3 rotor and the D 6-3 stator twister, set the water flow meter to 400 – 450 litres per hour. Using the PFT consistency check container, the correct water addition can be checked and set using the slump reading. This may not exceed 61 cm on the prepared substrate and should be continually checked during installation.
- The readiness of the substrate to receive finishes is to be determined by moisture measurements with a carbide hygrometer (CM device), keeping to the following limiting values:

Maximum moisture content of the levelling compound determined with CM device

Floor finish		Heated	Unheated
Water vapour permeable finishes		0.3 %	0.5 %
Textile finishes	Water vapour barrier	0.3 %	0.5 %
	Water vapour permeable	1.0 %	1.5 %
Parquet		0.3 %	0.5 %
Laminate flooring		0.3 %	0.5 %
Ceramic tiles and natural stone / concrete stone tiles	Thin bed method	0.3 %	0.5 %
	Thin bed method with UNIFIX-AEK	1.0 %	1.5 %

The CM measurement is to be carried out in accordance with the current FBH-AD work instructions from the technical information for the coordination of cut out points with heated floor constructions.

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- With magnesite screeds rear acting moisture pressure from the substrate must be eliminated with appropriate measures. The magnesite substrate must be mechanically roughened and primed with the epoxy resin ASODUR-V360W, with maximum 5% water addition, (approx. 250 g/m²). After waiting for approx. 12 to 24 hours at +20° C, apply a second coat of ASODUR-V360W (approx. 300 – 350 g/m²). Whilst it is still wet, broadcast the second coat to excess with quartz sand of grading 0.2 – 0.7 mm. After waiting for a further 12 – 16 hours, levelling can be carried out with ASO-NM15 up to a maximum thickness of 15 mm.
 - Take care with the water addition. Where the water addition is too great, separation occurs resulting in a low surface strength. Such low strength surfaces must be mechanically removed.
 - Perimeter, bay, structural joints and movement joints are to be carried through as well as being incorporated in the planned position, and filled with a suitable material e.g. perimeter insulating strips RD-SK-50. Once the ASO-NM15 has hardened, crack inducing joints are to be cut into the top third of the applied bed thickness.
 - Open pored substrates cause greater material consumption.
 - Higher temperatures accelerate, lower temperatures slow down the setting process.
 - Follow the appropriate current regulations. Therefore e.g. DIN 18 157, DIN 18352, DIN 18560, DIN EN 13813, DIN 1055
- Information sheet of the Schloss Rosefeld expert circle EURO-F-E-N: Tiles, slabs, natural and concrete slabs on poured asphalt in interior areas.
- The BEB data sheets, distributed by the German Association for screeds and coverings.
- The technical information for the coordination of cut out points with heated floor constructions.

The ZDB data sheets, distributed by the Professional Association of the German Tile Industry:

- [* 1] Advice on the installation of combined waterproof membranes with tile and slab wall and floor finishes in interior and exterior areas.
 - [* 2] Finishes on calcium sulphate screeds.
 - ["3] Movement joints in wall and floor tiled finishes.
 - [* 5] Ceramic tiles and slabs, cut natural stone and concrete slabs on cement-based floor constructions with insulation.
 - [* 6] Ceramic tiles and slabs, cut natural stone and concrete slabs on heated, cement-based floor constructions.
- Only use clean tools and clean water.
 - Observe the technical data sheets of the products mentioned above.

Please observe a valid EU Health & Safety Data Sheet!

GISCODE: ZP1