

## weber.plan 813-40

Floor levelling compound up to 40 mm

**Quick-setting, fiber-reinforced and highly polymer-modified self-levelling underlay for indoor floors for thicknesses 2 - 40 mm (CT-C30-F7-AR1)**

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### Fields of application

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As easy-flowing, quick-setting compound for levelling dimensionally stable substrates, such as cement and calcium sulphate screeds, mastic asphalt screeds, heated screeds, timber planks, chipboards, concrete, cement-based slabs and old load-bearing ceramic tiles. Also for electric underfloor heating elements and for thin-layer warm water underfloor heating elements. For use as bonded system in all cases.

Suitable under floorings, such as ceramic tiles and natural stones, parquets, carpets, PVC, vinyl or linoleum. In case of slight mechanical stress on mineral substrates and a layer thickness > 6 mm the surface can also be used directly, i.e. without flooring (e.g. storage rooms or rooms in basements). Due to its low-stress hardening and optimum flow properties, the product can be applied in a single operation up to a layer thickness of 40 mm.

For use indoors.

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### Description

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**weber.plan 813-40** is a self-levelling floor underlay.

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### Composition

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Special cement, selected aggregates, polymers

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### Main features

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- **EMICODE EC 1 PLUS**: very low emission of volatile substances
- **CE marking: CT - C30 - F7 - AR1 (EN 13813)**
- self-levelling
- pumpable
- crack-free and stress-free during setting
- resistant under chair castors (in accordance with DIN 13892) when used under flooring materials

- wear resistance AR 1 (in accordance with BCA)
- high reliability thanks to fibers
- for use indoors
- suitable also for wooden substrates

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## Technical values

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Pot life:	approx. 20 minutes
Maturing time:	approx. 2 minutes
Application temperature:	+5°C - +25°C
Flexural strength (28 days):	> 7 N/mm <sup>2</sup>
Compressive strength (28 days):	approx. 30 N/mm <sup>2</sup>
Consistency (slump/flow rate):	23 - 25 cm (with flow ring: Ø 68 mm/ height 35 mm)
Open to foot traffic:	approx. 2 - 4 hours
Delay for over-working (with next products):	approx. 2 - 4 hours in case of tiles; longer delays for other floorings
CE marking:	CT - C30 - F7 - AR1 (EN 13813)
Chromate content:	low content (EC regulation 1907/2006)

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## Quality control

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**weber.plan 813-40** is subject to a regular quality control by self-monitoring.

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## General notes

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- Do not process already stiffened material.
- All characteristics mentioned in this data sheet are based on a temperature of +23°C without draught and a relative humidity rate of 50%.
- Higher temperatures and lower humidity rates accelerate, lower temperatures and higher humidity rates delay the setting process.
- All walls and upstands (pillars, columns etc.) within the floor should be separated from the floor construction with a foam strip in order to stop stretching and ingress of the levelling mortar into the connection joints; it must reach downwards from the substrate up to the upper edge of the final floor covering.
- Take over the existing joints in the substrate.
- Mastic asphalt screeds: a strength of at least class IC 10 is mandatory.

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## Special notes

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- **Limits of use:** always use **weber.plan 813-40** as bonded system. If a self-levelling compound on separating membranes or insulating boards is requested, use either **weber.floor 4320** (quick-setting and -drying floor levelling compound for renovation and timber floors) or **weber.floor 4365** (thin-layer cement screed).
- In case of application in wet-duty rooms special measures for waterproofing should be taken by applying bonded waterproofing layers, such as **weber.tec 822** (liquid waterproofing foil), **weber.tec Superflex D 2** (2-comp. reactive waterproofing slurry) or **weber.xerm 844** (2-comp. waterproofing, tile adhesive and de-coupling system).
- The product can be left without any covering in case of layer thickness of at least 6 mm and vehicular traffic with soft tyres and max. 2 tons axle load.
- Do not walk on primed timber floors with nail shoes for further processing.
- In case of wooden constructions, it is necessary to limit the surface area of the levelling mortar; arrange dummy joints for special structural features and special room geometry i.e wall entry points, doorways, wall recesses. Maximum dimension of each individual working section < 16 m<sup>2</sup>.
- If used on electric underfloor heating (as bonded system) a covering of elements by at least  $\geq$  of 10 mm must be provided.
- If used on thin layer warm water underfloor heating (as bonded system) a covering of pipes by at least  $\geq$  10 mm must be provided; use the woven mesh **weber.sys 835** for reinforcing the levelling mortar.
- In case of heating constructions, function heating must be carried out before allocation.
- Observe the **application tip** "Application chart of **weber.plan 813**" for full information about specific primer and leveling thickness in accordance with each substrate.

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## Substrate preparation

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- The substrate must be sufficiently firm, load-bearing, clean, dry, dimensionally stable, and free of all adhesion-impairing particles and substances.
- Concrete substrates must be free of cement laitance.
- Completely remove oil, grease, wax and care product residues.
- Remove chalking paints as well as solid lacquer and dispersion paints mechanically.
- Smooth, mineral substrates: roughen mechanically by means of grinding or sandblasting or shot blasting.
- Absorbent cement-based substrates: use the primer for floor levelling compounds **weber.prim 802** diluted with water 1 : 3; on small areas use the primer **weber.prim 801**.

- Non-absorbent, smooth surfaces (e.g. old load-bearing tiles): grind, vacuum off dust and use the primer **weber.prim 803** or **804**.
- Bonded calcium sulphate screeds: grind, vacuum off dust and use the primer **weber.prim 802** diluted with water 1 : 1 in case of layer thickness 1 - 10 mm; use the 1-comp. quick-drying multi-use primer **weber.prim 804** in 2 coats in case of layer thickness 11 - 40 mm.
- Timber planks and OSB boards: use the bonding primer **weber.tec 803** and lay the pre-said mesh for layer thicknesses 10 - 40 mm.
- Chipboards: use the primer **weber.prim 802** diluted with water 1 : 1 for layer thicknesses 2 - 3 mm; use the primer **weber.prim 803** or the epoxy resin primer **weber.prim 807** and lay the pre-said mesh for layer thicknesses 10 - 40 mm. If the epoxy resin primer is used, apply 2 coats and scatter the oven-dried silica sand **weber.sys Hartquarzmaterial** (0.7 - 1.2 mm) over the fresh second coat. After curing (approx. 24 hours) vacuum off any loose sand.
- Clean (if necessary, grind) timber planks or chipboard with firmly joined tongue and groove from residues of care products, e.g waxes. The floors must not be springy and must be well fixed to the timber planks. Fasten with wood screws, if necessary. Close wide joints with the acrylic joint sealant **weber.fug 888**.
- Old or soiled mastic asphalt screeds with a strength class IC 10 and with bad sand cover: roughen mechanically. Use the primer **weber.prim 803** or **804** in case of layer thicknesses 2 - 5 mm. Use the primer **weber.prim 807** in 2 coats in case of layer thicknesses 5 -20 mm; scatter the pre-said silica sand (0.7 - 1.2 mm) over the fresh second coat and vacuum off any loose sand after curing (approx. 24 hours).
- Clean mastic asphalt surfaces with a strength class IC 10 and with sufficient sand cover can be levelled out without priming). Here too, the levelling layer should not exceed 20 mm.
- In case of rising damp (e.g. rooms in basements), apply 2 coats of the primer **weber.prim 807** as vapour-barrier directly onto the concrete substrate and scatter the pre-said silica sand (0.7 - 1.2 mm) over the fresh second coat. After curing (approx. 24 hours) vacuum off any loose sand.
- Level out unevennesses (depressions or holes) over 40 mm with **weber.plan 813-40** blended with 50% by weight of sand (0 - 2 mm).
- After the primer is dry, lay the mesh for improving the mechanical characteristics of the levelling mortar for application  $\geq 10$  mm on timber planks, OSB boards, chipboards and thin-layer warm water underfloor heating elements as well as for application  $\geq 5$  mm on mastic asphalt.
- The substrate preparation must be adapted to the specific job site conditions.

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## Working instructions

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### Mixing

- **Mechanical application:** use the mixing and pumping machine m-tec Duomix 2000 (approved by **Weber**).
- The pump and delivery hoses should be emptied if idle for over 20 minutes.
- A steady consistency is a pre-requisite for the final properties of the levelling mortar. Monitor the consistency regularly via slump test. Take mixed material in the 1.3 liter flow tin, pour it into the flow ring and measure the slump (230 -250 mm) on the flow table. The mortar must not show any bleeding.
- Before pouring the hoses should be pre-lubricated with a slurry of **weber.plan 813-40** or cement and water prior to the pumping of the first mixture. Afterwards this mix is disposed of in a container as waste. Do not use it for the levelling mortar.
- **Manual application:** pour clean water in a suitable mixing vessel and add the powder. Mix the bag content (25 kg) with approx. 6.2 liters of water, using an electric drill and an appropriate stirrer (for ex. **weber.sys Rührpaddel** no. 8) for at least 3 minutes, until an easy-flowing and lump-free mortar is obtained. After a maturing time of 2 minutes, stir again briefly at slow speed.

### Application

- When **weber.plan 813-40** is pumped, limited working sections with a maximal width must be determined, in order to ensure the full workability of the product (mixing, levelling and smoothing) within its pot life.
- If the specified width is exceeded, use the self-bonding foam strip **weber.sys Absperroleiste/weber.floor 4965** in order to form bays and stop ends.
- Pumping is carried out in working sections so that a new section is pumped as quickly as possible and to maintain a wet edge.
- Pour out the mixed material, starting at the lowest point of the substrate and distribute to the required layer thickness with the notched blade scraper **weber ABS Schwedenraker** in 30 cm width (for angles and small surfaces) and in 60 cm width (for larger surfaces) which will assist the self-levelling process, or with the flat rake **weber Großflächenraker** (without notched blade) for smoothing works at a shallow angle.
- Continuous application of individual mixtures will avoid visible breaks between the working sections. If necessary, go over such breaks using a spike roller.
- Whenever the mesh **weber.sys 835** is used, it must be laid in strips so that its sides overlap by at least 10 cm.
- The product is self-spreading and levels itself automatically. Thin layers can additionally be vented with a spike roller.

- In case of high flatness demands, we recommend to treat the fresh surfaces with a spike roller as a rule.
- When applying **weber.plan 813-40** on top of itself use the primer **weber.prim 802** diluted 1 : 3 with water on the hardened surface. Apply the new layer of **weber.plan 813-40** after 3 - 4 hours.
- Do not add any foreign substances during mixing, pumping and application.
- Respect the minimal and maximal layer thicknesses according to the specific substrate: : cement and anhydrite screeds: 2 - 40 mm / timber planks and OSB boards: 10 - 40 mm + mesh / chipboards: 2 - 3 mm or 10 – 40 mm + mesh / mastic asphalt: 2 - 5 mm or 5 - 20 mm + mesh / old load-bearing ceramic tiles and natural stones: 2 - 40 mm / electric underfloor heating elements: at least 10 mm covering over elements / thin-layer warm water underfloor heating elements: at least 10 mm covering over elements + mesh, depending on substrate / direct use (without covering): 6 - 40 mm
- Protect freshly installed surfaces from draughts, and the direct effects of sunlight and heat.
- Clean mixing equipment and tools with water (fresh product). Hardened material must be removed mechanically.

## Readiness for covering

- Covering with ceramic tiles and natural stones: after 2 - 4 hours
- Covering with carpets and steam-tight floorings: after 3 days
- Covering with parquet: after 7 days
- For applications with layer thicknesses up to 5 mm, carpets, parquet and steam-tight floorings can be applied already after 24 hours.
- Coverings with reactive resin-based paints/sealers (**weber.tec 795** or **weber.floor 4736**) or coatings (**weber.tec 796** or **weber.floor 4740, 4741**): after 72 hours. For full information request technical advice.
- In case of calcium sulphate screeds the flooring can only be laid, when a residual moisture content of maximum 0.5 CM-% (by weight) is reached (unless otherwise recommended by the manufacturer). The moisture content must be measured with a carbide hygrometer (CM) as a rule.
- In case of use in layer thicknesses > 5 mm on chipboards, the flooring must be laid after 3 days at the latest; if this delay cannot be kept, apply 2 coats of the primer **weber.prim 807** and scatter the silica sand (0.7 - 1.2 mm) over the fresh second coat. After curing (approx. 24 hours) vacuum off any loose sand.

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## Practical information

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Water demand:

approx. 6.2 liters/ 25 kg

Application thickness:

2 mm - 40 mm

Tools:

Mixing and pumping machine m-tec Duomix 2000, electric drill + stirrer **weber.sys Rührpaddel** no. 3, slump test tools (tin, ring and table), notched blade scraper **weber ABS Schwedenrakerl** (30 cm width for angles and small surfaces and 60 cm width for larger surfaces), flat rake **weber Großflächenrakerl** (without notched blade), flat trowel, spike roller

Storage:

The product can be stored at least 18 months in its original unopened packaging, if kept dry and protected from moisture.

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## Consumption

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per mm layer thickness: approx. 1.5 kg/m<sup>2</sup>

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## Packagings

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Type	Sales unit	Number / euro-pallet
Plastified bag	25 kg	42 bags

*The information in this technical data sheet is based on our current knowledge and experience at the time of printing. However, they do not guarantee in the legal sense.*