

weber.floor 4685G

Marine Ultra Light

Cement-based levelling compound for shipbuilding in thicknesses from 1 - 30 mm

Fields of application

For height compensation on floors in shipbuilding and offshore applications. For passenger and crew cabins, wet areas with appropriate waterproofing and for light traffic areas, mainly foot traffic areas. Also as underlayment under floor coverings such as PVC, vinyl, linoleum, textile and ceramic coverings. For use indoors

Description

weber.floor 4685G Marine Ultra Light is a factory-mixed, cement-based and polymer-modified floor levelling compound.

Main features

- very low consumption
- extremely low weight
- suited for machine application
- flow-grade or non-levelling consistency
- early open to foot traffic

Technical values

Water demand:	approx. 45 % (non-levelling) approx. 60 % (flow-grade)
Consistency (slump /flow rate):	170 - 200 mm (with flow ring: Ø 68 mm/height 35 mm)
Layer thickness:	1 - 30 mm (non-levelling)\ 5 - 30 mm (flow-grade)
Pot life:	approx. 15 - 20 minutes
Application temperature (air):	+ $\geq$ +10°C - $\leq$ +30 °C
Application temperature (substrate):	+10°C - +25 °C
Open to foot traffic:	approx. 3 - 6 hours

Open to light load:	approx. 24 hours
Open to full load:	approx. 7 days
Reaction to fire:	class A2 fl s1 (EN 13501-1)
Compressive strength (28 days):	approx. 10 N/mm ²
Bending tensile strength (28 days):	approx. 3 N/mm ²
Surface tensile strength (28 days):	approx. 1.0 N/mm ²
CE marking:	CT - C8 - F2

Quality control

weber.floor 4685G Marine Ultra Light is subject to a regular quality control by self-monitoring according to EN 13813.

General notes

- Assess the levelling requirements beforehand and mark the finished floor heights.
- In case of doubt regarding application, substrate or special structural features, request technical advice.
- The final surface must receive a covering, and is not allowed to be left without.
- When applied in a flow-grade consistency, only textile coverings can be used on top.
- Do not add any foreign substances during mixing and application.

Special notes

- Limits of use: only use indoors.
- Store material warm and dry before application.
- Ideal construction site temperatures +10°C - +25°C.

Substrates

Substrate preparation

- The substrate must be firm, load-bearing, dry, solid, and free of dust and all adhesion-impairing contaminants.
- The substrate must always be prepared by appropriate mechanical means, for ex. shot blasting, milling etc., so that a tensile strength (pull-off strength) of the substrate surface of $\geq 1.0 \text{ N/mm}^2$ is reached. In case of layer thicknesses $< 10 \text{ mm}$, a tensile strength of 0.5 N/mm^2 is sufficient.

- Steel decks: use the water-based primer weber.floor 4716 diluted with water in a ratio 5 : 1.
- Galvanized steel and aluminum decks: use the 2-component solvent-free epoxy primer weber.floor 4710. After application oven-dried silica sand weber.floor 4936 or weber.floor 4937 should be scattered on the still fresh primer. After the primer has hardened, vacuum off excess silica sand.
- Observe the technical data sheets of the primers.
- The substrate preparation must be adapted to the specific job site conditions.

Working instructions

Mixing

- Mechanical application: use the mixing pump m-tec Duomix 2000 equipped with a dry screw conveyor with adapted gradient; this equipment is approved by Weber.
- For optimal application the whole length of hoses should be at least 40 meters. At temperatures below 15°C the minimum hose length is 60 meters.
- A steady consistency is a pre-requisite for the final properties of the levelling compound. Monitor the consistency regularly after every 5 tons of material throughput via slump test. Take mixed material in the 1.3 liter tin, pour it into the flow ring and measure the slump (170 - 200 mm) on the flow table. The mortar must not show any bleeding.
- Manual application: mix with approx. 4.95 liters of water (in case of non-levelling consistency) or approx. 6.6 liters of water (in case of flow-grade consistency) per 11 kg bag.
- Mixing is done in a larger mixing drum or a mixer with space for 3 - 4 bags of dry material, giving a total volume of 60 - 80 liters. First pour the water into the mixing drum, then add the powder. Mix for 2 - 3 minutes until lump-free, using an electric drill and an appropriate stirrer.
- Observe a maturing time of approx. 1 minute and mix again shortly.
- Excessive water content reduces the mechanical strengths, and increases the risk of cracks and shrinkage.

Application

- In case of mechanical application, limited working sections must be determined, in order to ensure the full workability of the product (mixing, levelling and smoothing) within its pot life. Therefore, the width of each working section should not exceed 6 - 8 meters, depending on pump capacity and application thickness.
- If the specified width is exceeded, use the self-bonding foam strips weber.floor 4965 in order to form temporary bays and stop ends.

- Pumping is carried out in sections so that a new section is pumped as quickly as possible and to maintain a wet edge. The material is applied along the previous web (lane) in the intended layer thickness, so that it can flow together.
- Rule and smooth the fresh mortar without delay either 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).
- Clean mixing equipment and tools with water (fresh product). Hardened material must be removed mechanically.
- In case of manual application pour and distribute the material in the intended layer thickness with the flat rake with 2 adjustable pins weber Großflächenraker (without notched blade). Without delay smooth again with the flat rake at a shallow angle.
- Excessive water content reduces the mechanical strengths, and increases the risk of cracks and shrinkage.
- Clean mixing equipment and tools with water (fresh product). Hardened material must be removed mechanically.

Aftercare

- Protect freshly installed surfaces from draughts, and the direct effects of sun light and heat.
- Ventilation is necessary as soon as the product is open to foot traffic, and avoid draughts.
- In case of contamination, remove the product for ex. by grinding.

Readiness for covering

- In case of non-levelling consistency the floor is ready for covering after approx. 3 days.
- In case of flow-grade consistency the floor can be only covered with textile coverings and after approx. 7 days.
- These delays are given for a temperature of +20°C and 50% relative humidity.

Practical information

Water requirement:

approx. 45 % - 4.95 liters/11kg (non-levelling grade)

approx. 60% - 6.6 liters/11kg (flow-grade)

Tools:

Mixing pump m-tec Duomix 2000 with dry screw conveyor and adapted gradient or electric drill + stirrer, slump test tools (tin, ring and table), notched blade scraper weber

ABS Schwedenraker in 30 cm width (for angles and small surfaces) and in 60 cm width (for larger surfaces), flat rake with 2 adjustable pins weber Großflächenraker (without notched blade), wide flat trowel

Storage:

The product can be stored at least 6 months in its original unopened packaging, if kept dry, cool and frost-free.

Consumption / yield

per mm layer thickness: approx. 0.55 kg/m²

Packagings

Type	Sales unit	Number / euro-pallet
Plastified bag	11 kg	48 bags