- Low density – weight saving
- Insulating - possibility to reduce energy consumption
- Pumpable
- Rapid drying and fast setting
- For slope building and thicker layers
- For most types of substrates

About this product

weberfloor 450 Light is a rapid drying lightweight mortar, consisting of Portland cement and expanded Polystyrene for use on steel-, galvanised steel- and aluminium decks as well as on existing concrete, stone and ceramics in layer thickness from 30 to 600mm. Before top covering, weberfloor 450 Light **MUST** always be covered with a Weber screed layer of minimum of 20 mm.

The material is supplied as pre-mixed dry powder; water is added on site of construction. The mortar can be hand-applied or pumped in towards place of application using a Weber mixer pump, walkable after approx. 12 hours and ready to be covered by Weber screed in 12 hours to 7 days. The curing time depends on the layer thickness, substrate temperature and the ambient air temperature of the work area as well as the relative humidity.

weberfloor 450 Light meets all fire technical requirements as a subfloor for floor coverings in passenger/merchant vessels and offshore installations according to IMO Res. A.687 (17). For special applications not covered in this product datasheet, please contact Weber for further advice and guidance. Also refer to applicable national regulations.

Area of use

weberfloor 450 Light is recommended for use in ..... The product can be laid with adhesion to the substrate and as a floating construction. Layer thickness 30-600 mm. In floating construction 50-600 mm. weberfloor 450 Light must always be topped with a minimum of 20 mm Weber leveling compound.

Substrate

Steel, galvanised steel, aluminium, concrete/cement-based, stone and ceramics, floating floor constructions and wooden floors. The substrate shall be clean and free from dust, cement rich skin and laitance, grease and oil residues, weak surface layers and other impurities that might prevent adhesion. The substrate temperature should be above +10°C.

Substrate type

- Concrete
- Cementitius floor levelling
- Tile
- Stone
- Floating construction

Product specification	
Material consumption	45 liters bag = approx. 45 mm/m²
Minimum layer thickness	30 mm (50 mm in floating floor constructions)
Maximum layer thickness	600 mm
Recommended water content	Mixed with water, maximum 6,4 liters per 45 ltr bag.
Pot life (Operating time)	Approx. 30 minutes after adding water
Curing time for covering	12 hours – 7 days
Curing time for pedestrian traffic	Approx. 12 hours
Compressive strength	Depends on Weber screed used for covering.
Fire class	IMO 2010 FTP Code Part 5 and Annex 2, Item 2.2.
Thermal conductivity	0,1 W/mK
Density of dry hardened mortar 28 days	0,55kg/mm/m²
Storage conditions	When stored in unopened and intact packaging, under dry conditions, shelf-life is min. 12 months from date of manufacture. Incorrect storage could have an adverse impact on the product properties. Older material should be tested, using the stipulated amount of added water to the mix, to ensure that the product properties are intact and the material cures within 1-2 hours after application. Longer setting times indicate that the product properties have been disrupted and the material should not be used. Avoid adding more water than recommended.
Package	45 liter bags on plastic wrapped pallets (17 kg per bag) 21 bags per pallet = 945 liters / 357 kg per pallet.
Certifications	Certificate No.: MEDB0000585
PR. number	608374

Pretreatment

The substrate should be mechanically prepared to remove impurities that might prevent adhesion and then vacuum cleaned. The substrate should be primed properly. Floor drains etc. should be protected with lids and separated with stop ends. Steel decks must be primed with weberfloor 4716N Primer diluted 5:1 with 5 parts of primer and 1 part of clean water, applied to the substrate using rubber squeegee, roller, brush or primer pump. Galvanized steel must be primed with weberfloor 4716N diluted 5:1 with 5 parts of primer and 1 part of clean water, applied to the substrate using rubber squeegee, roller or brush. After application and whilst the primer is still fresh, dry powder must be thoroughly brushed into the primer making a slurry coat on the substrate. After the slurry primer has cured the slurry surface should be primed with a thin coat of weberfloor 4716N diluted 1:3 with 1 part of primer and 3 parts of clean water. Galvanized steel must be primed with weberfloor 4716N diluted 5:1 with 5 parts of primer and 1 part of clean water, applied to the substrate using rubber squeegee, roller or brush. After application and whilst the primer is still fresh, dry powder must be thoroughly brushed

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into the primer making a slurry coat on the substrate. After the slurry primer has cured the slurry surface should be primed with a thin coat of Floor 4716N diluted 1:3 with 1 part of primer and 3 parts of clean water. Aluminum decks must be primed with weberfloor 4760N/4762N Epoxy Primer, applied to the substrate using a rubber squeegee and roller. After application and whilst the epoxy primer is still fresh, it must be fully blinded with fire-dried quartz sand with grain size 1-2 mm. After the epoxy primer has cured all residual sand should be vacuum cleaned and the sanded surface should be primed with a thin coat of Floor 4716 diluted 1:3 with 1 part of primer and 3 parts of clean water. If another epoxy primer is being used, check for compatibility with weberfloor 450 Light. The function of the primers is to improve adhesion to the substrate, to prevent air bubbles and de-watering of the screed before hardening. For details on the primers see separate product datasheets for weberfloor 4716N and weberfloor 4760N/4762N.

The temperature in the substrate should be above +10°C for the primer to create a film. For ideal working conditions the ambient air temperature of the work area should be +10-25°C. Light ventilation in the work area is necessary, but windows and openings should be closed sufficiently to avoid draughts during and after application. The dry-mix material should be kept in a heated area before use. Strongly cooled material conveys a risk that certain additives will not be able to dissolve during mixture. Too high temperature strongly affects the pot life (open time) of the product, e.g. lead to flow properties changing and premature setting and hardening of the com- pound. To compensate for too high temperature of the work area and in the substrate it is recommended to cool down the added water with ice and also to restrain from using the ma terial in direct exposure to sunlight. Keep the dry-mix material stored in a ventilated area not exposed for direct sunlight.

Mixing

MIXING BY HAND

When mixing by hand, use a lifting mixer. Mixing takes place in a larger mixing drum or mixer with a volume of 100 liters. To reduce dust formation by hand mixing, the following steps are performed:
1. Open the bag by tearing the sewn end.
2. Close by rolling up the opening.
3. Hold the opening and place that part against the bottom of the mixing bowl.
4. Open the bottom of the bag and slowly pour 6.4 liters of water through the bag.
5. Carefully lift up the bag.

The material and water should be mixed using a powerful mixer or drill fitted with a paddle or a beater for approx. 2 minutes until the water is evenly distributed and the material has a homogeneous consistency.

MIXING BY PUMP

When pumping, only recommended Weber mixing pump shall be used. Hose length max. 40 m with 38 mm inner diameter. Before starting the pump, the hose must be lubricated. Start pumping with setting value of 600 on the pump's water setting, then adjust down to 550-500. Mixing takes place with max. 6,4 liters of water per 45 liters bag. NB! It is important that the pump is set to the stipulated water content and do not add more water than necessary to achieve a good result.

Work instructions

Spread the mixed mortar over the substrate and level off with a straight edge on battens or steel pipes of the desired thickness. Start applying the mortar in the short end of the room. The surface may be smoothed by float or steel trowel. Floor 450 Light should not be compressed or packed. The material must be finished processing within 30 minutes after mixing. The product is walkable after approx. 12 hours at room temperature.

After-treatment

weberfloor 450 Light allows foot traffic after approx. 12 hours. When the product has hardened, after approx. 12 hours, it must be covered with a minimum of 20 mm Weber screed inside 7 days. Surfaces that are expected to remain open for more than 7 days can be primed with weberfloor 4716N Primer within 5 days after laying or coated with plastic foil to reduce the risk of cracks and edging. Remove the plastic foil before levelling the weberfloor 450 light with Weber screed.

Areas larger than 10 m² must be reinforced with steel net. The reinforcement is placed in the levelling layer. weberfloor 450 Light must not be subjected to load before the screed has been applied.

NB! Recommended mixing means that the product becomes self-drying to an RF below 85% after approx. 28 days at + 20 °C. Workmanship and other conditions in the workplace can af fect the material and its drying. When using a higher amount of water than recommended, the product does not meet the specified drying. Before laying the coating should always ensure that the floor structure is sufficiently dried. Note that different surface coatings have different requirements for drying. The specified drying time requires a good drying climate of approximately + 20 ° C, 50% RH and some exchange of air.

When pumping with a flow mixer, the material consistency can vary somewhat. The consistency should be slow, similar to the consistency as with batch mixing with the recommended amount of water.

Safety regulation

The product contains cement which, together with moisture and water, acts aggressively against the skin and on the mucous membranes of the eyes, nose and throat. Therefore, wear gloves, a dust mask and goggles where there is a risk of splashing. The product does not contain any other hazardous substances. Cured material poses no known danger to the environment or health. For further information, see current Material Safety Data Sheet.

Disclaimer

As there are different conditions at every opportunity, Weber can not be held responsible for anything other than the information provided under the heading "Product Specification". Examples of information and circumstances, which are outside Saint-Gobain (whether specifically stated or not) include storage, construction, processing, interoperability with other products, workmanship and local conditions.

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