

weber.floor 4650

DesignColour

Cement-based coloured floor coating in commercial and industrial areas with light or medium mechanical loads (CT-C25-F7-AR1)

Uses	Benefits
<ul style="list-style-type: none">• coloured design floor without joints• for residential, industrial and commercial floors	<ul style="list-style-type: none">• self-levelling• dyed in 10 colours• lively and natural appearance

Fields of application

For levelling floors with light or medium mechanical loads, which should be characterized by a unique character through coloring, high flatness and a modern appearance.
For industrial and commercial floors, such as offices, museums, warehouses and showrooms etc. with pedestrian traffic and/or vehicular traffic (with pneumatic tyres).
The installation as a design floor must be carried out by certified companies.
For use indoors.

Description

weber.floor 4650 is a factory-mixed, cement-based, polymer-modified and dyed floor coating.

Main features

- **EMICODE EC1 PLUS**: very low emission of volatile compounds (VOC)
- CE marking: CT – C25 – F7 – AR1
- fits mechanical application very well
- early open to pedestrian traffic
- open to water vapour diffusion
- self-aerating: no need of spike roller
- for use indoors

Technical values

Relative water demand	approx. 18 % - 19 %
Absolute water demand	approx. 4.70 – 4.75 liters/25kg
Compressive strength (28 days)	> 25 N/mm ²
Flexural strength (28 days)	> 7 N/mm ²
Resistance to abrasion	AR1 (EN 13892-4/BCA rolling wheel test)
Pot life	approx. 15 - < 20 minutes at +20°C
Application temperature (air)	+10°C - +25°C
Reaction to fire	class A 2 fl s1 (EN 13501-1)
Layer thickness	4 - 15 mm; recommended layer thickness: 6 - 8 mm
Consistency (slump /flow rate)	220 - 230 mm (with flow ring: Ø 68 mm/height 35 mm)
Open to pedestrian traffic	approx. 2 - < 4 hours
Open to light load	> 3 days
Open to full load	> 7 days
CE marking	CT - C25 - F7 - AR1

Quality control

weber.floor 4650 is subject to a regular quality control by self-monitoring according to EN 13813.

General notes

- Comply with the national standards and/or guidelines relating to levelling works of floors. If not issued and if necessary, request technical advice.
- Assess the levelling requirement beforehand and mark the finished floor heights.
- Arrange dummy joints for special room geometry, i.e wall entry points, doorways, wall recesses etc. Take over existing movement joints.
- High temperatures shorten, lower temperatures extend the pot life.
- During application, and for at least 1 week afterwards, the ambient air and floor temperatures should not fall below +10°C.
- Relative humidity rate during setting: max. 70%
- Existing screed constructions on separating membranes or on insulation boards and heated screeds cannot be coated without an increased risk of cracking. In such cases screed binding agents, layer thickness, flexural strength over the entire cross-section and screed holder play a decisive role. If the works are not carried out in accordance with the **weber.floor** system recommendations, the contractor must check the substrate and the whole build-up on his own responsibility.

- In case of doubt regarding application, substrate or special structural features, request technical advice.
- Do not add any foreign substances during mixing and application.

Special notes

- As a rule, read all instructions given in the **Weber** documents related to the cleaning and care of fair-faced levelling mortars before application and discuss these instructions with the building owner.
- Only companies certified by **Weber** are allowed to install floors with **weber.floor 4650**. Following **weber floor** system recommendations must be observed: “**DesignFloor on floating screeds** - Cement-based and coloured coating on floating screed in commercial premises, for ex. shops, showrooms, museums, shopping malls and in residential premises” or “**DesignFloor on bonded screeds** - Cement-based and coloured coating as bonded system in commercial premises, for ex. shops, showrooms, museums, shopping malls and in residential premises”.
- Carefully waterproof edge joints, decorative rails, etc. and connect them at the proper height.
- Subsequent repairs or touch-up attempts remain permanently visible.
- Through-coat contiguous surfaces in one working step without interruptions and/or with material with the same production batch number.
- Minor shade deviations are unavoidable due to different product batches. Apply material with the same batch number (see label on packaging) on contiguous surfaces so as to obtain a uniform colour appearance.
- The colour and appearance of the hardened coating surface can vary depending on the raw materials and specific conditions of job site as well as on the “handwriting” of the applicator.
- Window surfaces should be suspended during installation to prevent direct sunlight.
- Coordinate the laying direction of the working sections with the planner/ builder in advance. The individual casting tracks are more or less clearly visible in the finished surface, depending on the colour shade.
- A uniformly pre-treated and a levelled surface contribute to a more uniform appearance. Therefore carefully apply the **epoxy resin primer weber.floor 4712** (EC 1 - very low emission) on the prepared substrate.
- Respect the recommended standard layer thickness of 6 - 8 mm. Variations of maximum 2 - 3 mm are allowed.
- Do not add any foreign substances during mixing, pumping and application.

Substrates

- Concrete, bonded cement screeds, cement-based levelling compound for industrial floors 5 - 50 mm **weber.floor 4602 IndustryBase-Extra** (CT-C25-F7-AR1) and calcium sulphate flow screed for high loads 30 - 80 mm **weber.floor 4470** (CAF-C30-F7) are allowed substrates.
- Other substrates must be examined case-by-case.

Substrate preparation

- The substrate must always be prepared by appropriate mechanical means, e.g. grinding or shot-peening, in order to reach a pull-off strength $\geq 1.5 \text{ N/mm}^2$.
- Observe the **Weber** application tip “**Methods for the preparation of floor surfaces**”.
- Apply the epoxy resin primer **weber.floor 4712** and scatter silica sand **weber.floor 4936** (0.3 - 0.8 mm) full-surface.
- In case of capillary rising damp or water vapour pressure from the substrate, apply 2 coats of **weber.floor 4712** as vapour-barrier directly onto the concrete substrate with a scattering of silica sand over the fresh second coat.
- Level out any unevenness in advance with **weber.floor 4602 IndustryBase-Extra** (5 - 50 mm).
- 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 approved by **Weber**.
- For optimal application the whole length of hoses should be at least 40 meters and 60 meters in winter.
- A steady consistency is a pre-requisite for the final properties of the levelling compound. Monitor the consistency regularly via slump test after mixing of every 5 tons of material. Take mixed material in the 1.3 liter tin, pour it into the flow ring and measure the slump (220 - 230 mm) on the flow table. The mortar must not show any bleeding.
- **Manual application:** mix with approx. 4.7 liters of water per 25 kg bag for 1 - 2 minutes until lump-free, using a slow-speed electric drill and an appropriate stirrer (e.g. **weber.sys Rührpaddel no. 8**). 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

- **Mechanical application:** limited working lanes or 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 10 - 12 meters, depending on pump capacity and application thickness.
- If the specified width is exceeded, use the **self-bonding foam strip weber.floor 4965** in order to form temporary bays and stop ends.
- Pumping is carried out in sections so that a new lane or section is pumped as quickly as possible and to maintain a wet edge. The material is applied along the previous lane in the intended layer thickness, so that it can flow together.
- Afterwards rule and smooth the fresh mortar without delay with a flat rake (without notch blade), for ex. **weber.floor Designfloor-Rakel** at a shallow angle.
- **Manual application:** pour and distribute the fresh mortar in the intended layer thickness without delay with a flat trowel. Afterwards smooth with the pre-said rake or a flat trowel carefully at a shallow angle. A flat trowel can also be used in case of small areas and/or corners with difficult access.
- 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 sunlight and heat.
- Ventilation is necessary as soon as the product is open to foot traffic; avoid draughts.
- Wear clean shoes before walking over the new surface.
- Carry out a surface treatment with wax or stone oil after 12 hours at the earliest, best after 48 hours. First it is mandatory to polish the final surface of **weber.floor 4650** with a single disc machine and a blue or red pad at a rotation of min. 300 rpm until glaze grade. A test with the finger nail test should leave no mark. Wait at least 72 hours before applying a **weber.floor** reactive resin sealer.
- Take into consideration that care products, oils and reactive resin-based sealers have different colour-deepening effects and gloss levels. The technical recommendations are given by certified contractors.
- Refer to the **Weber** information sheet "**leaning & care of industrial and commercial floors weber.floor 4610 - 4650**".

Practical information

Colours:

10 shades

Water demand:

approx. 4.70 – 4.75 liters / 25 kg

Tools:

Mixing pump (for ex. **m-tec Duomix 2000**) or electric drill + stirrer **weber.sys Rührpaddel no. 8**, slump test tools (tin, ring and table), flat rake (without notch blade) **weber.floor Designfloor-Rakel**, flat trowel.

Storage:

The product can be stored for at least 2 months in case of fair-faced floor coating with optical demand and at least 6 months floor levelling compound without optical demand in its original unopened packaging, if kept dry and protected from moisture.

Consumption / yield

per mm layer thickness: approx. 1.7 kg/m²

Packagings

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.