

Technical Information Sheet Article No. 2804

Multiplan SIC

Highly loadable, self-flowing floor levelling compound

Hydraulic fast setting mortar with high resistance to wear caused by abrasion. Easy to apply, can be pumped, for use indoors and outdoors.

Range of use

Multiplan SIC is used as an early-loadable, self-smoothing levelling layer for the following substrates in indoor and outdoor areas:

- **For levelling concrete slabs, rough concrete floors, cement screed in industrial and trade areas**
- **As a direct wearing layer in warehouses, fabrication halls, workshops, garages and cellars**

Multiplan SIC is filled with hard fillers and has increased abrasion resistance. It can be directly used without a cover.

Examples: areas with foot traffic, chair roller loads, vehicle traffic with soft tyres (air, rubber or steel reinforced tyres).

Property profile

Multiplan SIC is a high quality, water resistant, mineral floor levelling compound with a special combination of cements, prepared mineral hard fillers, organic and inorganic additives that is ready to use after mixing with water and quickly sets hydraulically. Multiplan SIC can be worked by hand or with conventional pump machines using a positive mixer. The mixed mortar is flowing capable and flows by itself into a seamless, smooth surface.

Characteristic data of the product

Colour:	grey
Bulk density:	1.6 kg/l powder
Water requirements:	3.8 l per 25 kg powder
Consistency:	flowing capable after mixing
Working time:	15-20 minutes (depending on temperature)
Working temperature:	+5 °C to +25 °C substrate temperature
Application thickness:	8 to 15 mm on surfaces with indentations up to 30 mm
Density of the hardened mortar:	approx. 2.1 kg/dm ³
Compressive strength after 28 days:	approx. 30 N/mm ²
Tensile strength	8-10 N/mm ²
Frost-de-icing salt compatibility	
Bonding strength value after 50 cycles*:	> 1.5 N/mm ²
(in accordance with EN 13687-1)	
Foot traffic:	after 3-4 h (depending on temp.)
Vehicle traffic:	after 24 h with soft tyres
Moisture-sensitive covers/sealants:	after 3-4 days at < 3 % by weight residual moisture content
Resistance to wear (accord. to Böhme):	11.9 cm ³ /50 cm ²

Special features of the product:

- Easy to mix and distribute (can be pumped)
- Fast working
- Layer thickness from 8 to 15 mm, also for surfaces with indentations up to 30 mm
- Very low inherent stress, hardens crack-free, good adhesive bonding
- Sets quickly and can be subjected to foot traffic after 2-4 hours
- Smooth surface that can be directly used

- High adhesive, compressive and tensile strength
- Very high surface hardness through the use of a hard-grain additive
- Water and frost resistant
- For use indoors and outdoors

Substrate

The substrate should be sound, clean, dry and free of substances that could interfere with the adhesion of Multiplan SIC (e.g. layers of sinter, release agents, loose material, dust, marks from tyres, oil, grease, etc.). If necessary, clean the substrate and remove all non-load-bearing layers (e.g. steel ball jetting, grinding, brushing). Substrates with vehicle traffic or to which a thicker coating will be applied (> 10 mm) should always be roughened mechanically (adhesive pull strength > 1.5 N/mm²). Always remove dust thoroughly. The substrate is then primed. For surfaces directly utilised and for surfaces subjected to mechanical loads, a pore-filling epoxy resin primer is generally recommended, e.g. Epoxy ST100 (Art. No. 1160) blinded with quartz sand (0.7 - 1.25 mm, approx. 1.5 kg/m²). When indirectly utilised, prime with Haftfest (Art. No. 0220) diluted 1:3 with water. Poorly absorbent concrete/cement screed substrates should be primed with Deep Primer W (Art. No. 2842). Avoid the formation of pools.

Observe the respective Technical Data Sheets.

Mask edge and field joints with strips of foam rubber to prevent the levelling compound from running into the joints. Do not apply to heated substrates.

Directions

Pour **3.8 l of water** into a clean container and add **25 kg = 1 bag of Multiplan SIC**. This mixing ratio should be observed since the quality of execution and working depend on it. Mix Multiplan SIC thoroughly with mixing equipment/tool, e.g. mixers made by BEBA or a drill with spiral mixing tool, for at least 3 minutes until a homogeneous mortar with good flow proper-

ties have been achieved. Directly after mixing, pour Multiplan SIC onto the prepared substrate and distribute in the desired layer thickness.

Individual batches should be continuously worked to avoid seams. Remmers Multiplan SIC levels itself during distribution. Additional rolling of the surface with a spiked roller immediately after distribution reduces the time needed for working and creates a smoother surface since this improves de-airing of the material. Use a 35 mm spiked roller (Art.No. 5557). As a rule, Remmers Multiplan SIC is applied in a layer from 8 to 15 mm thick, also for indentations up to 30 mm. Remmers Multiplan SIC should only be worked in a single layer.

Working time depends on temperature and at 20 °C is approx. 20 minutes.

For larger areas (more than 500 m²) the use of a positive mixer with pump is recommended, e.g. - Mixing pump m-tec duo-mix 2000 (Berö Tinu).

When worked by machine, the layer must be at least 10 mm thick. If standing time is longer than 20 minutes, drain the pump hose and rinse with water. Continuous mixers should not be used since mixing time is only a few seconds and could require considerably higher quantities of water which reduces the quality of the mortar.

Notes

Initially set mortar cannot be made workable again by adding water or fresh mortar. Do not use at substrate temperatures below 5 °C or above 25 °C. Lower temperatures increase, higher temperatures reduce working time.

Multiplan SIC should be protected from drying out too quickly in wind and sun.

Moisture-sensitive covers and sealants may only be applied after the coating has dried to a residual moisture content < 3% by weight (depending on temperature 3-4 days). If subjected to simultaneous chemical loads (acids, sewage, etc.), apply a suitable protective layer.

The state of the surface of mineral systems depends on how they are worked, drying conditions and the thickness of the layer. For this reason, the surface may differ from samples or sample surfaces.

Further notes on flow screeds are found in Code of Practice 6 issued by the [German] Industry Group Screed Materials at the German Gypsum Industry Association in Darmstadt and the Industrial Association of Plant Mortars in Duisburg.

Tools, cleaning

Drill with spiral mixing attachment, BEBA mixing equipment or positive mixer, pump machines with a positive mixer, transport/pouring tubs, screed rake or toothed rubber blade for distribution in an even layer height, spiked roller for quick de-airing.

Clean tools and equipment with water while the mortar is still fresh.

Packaging, application rate, shelf-life

Packaging:

25 kg paper bags

Application rate:

Approx. 1.9 kg dry mortar/m² and mm thick layer

Shelf-life:

Approx. 12 months stored dry in closed bags on pallets protected from moisture.

Safety, ecology, disposal

Remmers Multiplan SIC contains cement and reacts alkaline with moisture. Protect skin and eyes. In case of irritation, rinse thoroughly with plenty of water. In case of eye contact, seek medical advice. Multiplan SIC is low in chromates within the meaning of TRGS 613. Further information on safety when transporting, storing and handling as well as disposal and ecology is found in the latest Safety Data Sheet.

The statements above are compiled from our field of production and according to the latest technological developments and application techniques.

Since application and working are beyond our control, no liability of the producer can be derived from the contents of this information sheet. Any statements made beyond the contents of this information must be confirmed in writing by the producer.

In all cases, our general conditions of sale are valid. With the publication of this Technical Information Sheet all previous editions are no longer valid.

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Remmers India Pvt. Ltd.
Gurgaon
Tel: +91 124 400 9131
Fax: +91 124 400 9134
www.remmers.in



Remmers (UK) Limited Crawley
United Kingdom
Tel: +44(0) 845 373 0103
Fax: +44(0)845 373 0104
www.remmers.co.uk

Remmers (Far East) Pte. Ltd.
Singapore
Tel: +65 6 7410277
Fax: +65 6 7417158