



HIM SL Conductive (AS)

Self levelling, 2 mm thick conductive epoxy floor with an electrical resistance of $5 \times 10^4 - 1 \times 10^7 \Omega$ (IEC 61340)

Uses
HIM SL Conductive (AS) has been designed for use as a seamless, conductive self-levelling floor with a coat thickness of 2 mm. The floor is very suitable for areas where static electricity is causing problems. Among others the floor is used in production and assembly areas in the electronic industry, cleanrooms, hospitals, computer rooms and areas where the risk of explosions or dust explosions is present. HIM SL Conductive AS is resistant to a wide range of chemicals and easy to clean. The floor can be optimised by finishing it with a coat of HIM FC AS in order to reduce body voltage generation.
Product description
HIM SL Conductive consists of a conductive undercoat and a conductive self-levelling layer. As an option an antistatic finish coat (HIM FC AS) may be applied. HIM SL Conductive is a cold-curing two-component resin based floor, consisting of blended epoxy resins, curing agents, carbon fibers and graded inert aggregates. HIM SL Conductive is supplied in 2 components, ready to use. HIM SL Conductive is available in a wide range of RAL- and NCS-colors. The color will however be affected by the carbon fibers.
Advantages
<ul style="list-style-type: none"> ▼ Prevents built-up and cumulation of static electricity ▼ Hygienic – seamless floor ▼ Solvent free – no odor or smell during application ▼ Decorative – available in a wide range of RAL and NCS colors ▼ Chemical resistance – good resistance to a wide range of chemicals ▼ Durable – good wear resistance
Maintenance
The service life of a floor can be considerably extended by good housekeeping. Regular cleaning may be carried out using a rotary scrubbing machine with a water miscible cleaning agent at temperatures up to 50°C. During the first 7 days the floor should not be cleaned with a water based cleaning agent.
Flooring system
<ul style="list-style-type: none"> • 1 coat of HIM Primer • 1 coat of HIM SL Conductive Undercoat • 1 coat of HIM SL Conductive (AS) • 1 coat of HIM FC AS (optional)

Technical data *)	HIM SL Conductive Undercoat	HIM SL Conductive
Mixing ratio base + hardener	1,02 kg + 3,98 kg	22,25 kg + 2,75 kg
Specific gravity (mixed)	App. 1,06	App. 1,7
Volume of solids (mixed)	App. 44%	100%
Temperature resistance		up to 80°C in air
Pot life at 20°C	Max. 60 minutes	Max. 60 minutes
Curing at 20°C	App. 16 hours	Foot traffic after 24 hours, vehicular traffic after 48 hours, fully cured after 7 days
Material Consumption (theor.)	App. 0,14 kg/m ²	3,4 kg/m ² for a coat thickness of 2 mm
Electrical resistance - floor to earth - operator to earth	App. $1 \times 10^4 \Omega$ -	$5 \times 10^4 - 1 \times 10^7 \Omega$ $< 3,5 \times 10^7 \Omega$
Gloss Gardener 60°		> 70 GU
Chemical resistance		the cured product is resistant to petrol, oils and fats, detergents, some aliphatic hydrocarbons and diluted alkalis. For further information on chemical resistance please contact HIM.
Compressive strength		> 90 MPa
Flexural strength		37 MPa
Abrasion resistance (Taber) (CS17/1000/1kg)		25 mg
Fire rating (Euroclass)		B _{f1} S ₁

*) For detailed information contact HIM.



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Temperature limitations
HIM SL Conductive shall not be applied at temperatures below 5°C, nor at a substrate temperature which is lower than the dew point temperature plus 3°C. The maximum application temperature is 35°C.
Surface preparation
It is essential to thoroughly prepare the floor surface in order to achieve a sound, clean and dry substrate. It may be necessary to level the floor before applying HIM SL Conductive. For concrete light grit-blasting is recommended.
Limitations
New concrete floors should be at least 28 days old and contain less than 5% moisture. With non-self-supporting concrete floors transfer of moisture from the soil might occur, resulting in adhesion failures of the flooring system. In order to judge the suitability of a substrate beforehand : apply the rubber mat test. If the existing substrate is showing cracks or movement, this may show in the new applied layer. In case the water contents in the floor is between 5% and 8% (CM method) or in case of vapor pressure, HIM Primer 36 (a water tolerant primer) should be used.
Primer
Apply the HIM Primer on the prepared substrate. Mix both components of the primer till a homogeneous mixture is obtained. The Primer should be applied immediately with a roller or brush in a thin continuous film. Care should be taken to avoid over application or puddles. If the existing floor is very porous a second coat may be necessary. Alternatively a scraping layer may be used.
Earth connections
A minimum of 4 earth connections per room is recommended. For larger areas 2 earth connections per 100 m ² is considered to be sufficient. Make sure there is enough length to make the connection to the earth-net afterwards. The earth connections are connected to the primed surface using conductive tape. The undercoat is applied over the tape. When the floor is divided in segments these segments can be connected by using conductive tape.
Mixing HIM SL Conductive Undercoat
Proper mixing of the components is essential. Add the base to the base component and mix well for 3 minutes.
Application HIM SL Conductive Undercoat
When mixed, HIM SL Conductive Undercoat) should be applied immediately on to the primed surface, using a brush or roller. Respect the material consumption of 0,14 kg/m ² . The undercoat is an essential part of the system and correct application is a must. The undercoat is water-based. Take care of the temperature and sufficient ventilation. Measure the resistance of the undercoat before applying the self-levelling HIM SL Conductive. Result should be app. 1,0 x 10 ⁴ Ω.
Mixing HIM SL Conductive
Proper mixing of the components is essential. Add the hardener to the base component and mix well for 3 minutes. It is recommended to pour the mix into a clean tin and mix again before applying the material. Unmixed material may result in soft spots and/or differences in color and gloss. Do not add solvent!
Application HIM SL Conductive
When mixed, HIM SL Conductive should be applied immediately on to the primed surface. Use a steel trowel or float, without too much pressure, to obtain the desired coat thickness. Immediately after applying HIM SL Conductive should be spike- rolled cross-wise. Spike-roll again after 25-30 minutes. Use one batch in order to prevent differences in color and gloss.
Joints
Dilatation joints in the substrate must be repeated in HIM SL Conductive.
Safety precautions
Some of the components mentioned in this product information sheet, may be classified as irritant, flammable or corrosive. Material Safety Data Sheets, available for each component, must therefore be fully consulted in order to make sure relevant care is taken.
Tool cleaning
HIM SL Conductive should be removed from tools and equipment with HIM Solvent 102 immediately after use.
Shelf life
HIM SL Conductive has a shelf life of 12 months if kept in a dry, cool store in the original, unopened packs.
Disposal
Disposal of spillage or empty packaging should be in accordance with local waste disposal regulations. For further information refer to the Material Safety Data Sheet.
Pack size
HIM SL Conductive is supplied in sets of 25 kg.
Flash points
HIM SL Conductive Undercoat base > 150°C HIM SL Conductive Undercoat hardener > 100°C HIM SL Conductive base > 150°C HIM SL Conductive hardener > 100°C For primer, finish and solvent see the relevant technical datasheet.