

TM Rotavjämning K

TM Rotavjämning K is a self-drying, fibre-reinforced, cement-based levelling compound that is pumpable. The product is low-alkaline, which considerably reduces the risk of alkaline degradation of adhesives and other finishes.

FACTS IN BRIEF

- Pumpable
- Can be applied manually
- Levelling, slope building
- Can be walked on after approx. 1 hour
- Flooring can be laid after 2-3 days
- Fibre-reinforced
- Light industrial floors
- Compliant with AMA Hus

APPLICATION

TM Rotavjämning K is used to even out level differences or create a controlled slope for indoor flooring. When set, the levelling compound is designed to be coated with an appropriate surface layer in applications where the load level does not exceed lighter industrial loading.

PROPERTIES OF THE SET LEVELLING COMPOUND

Flexural strength EN 13813	F7
Compressive strength EN 13813	C30
Surface tensile strength	>1,5 MPa
Abrasion resistance, office castors EN 13813	RWFC 450
Abrasion resistance, steel castors	RWA 100
Release of corrosive substances	CT
Fire class	A1
Free shrinkage	<0,04 %
P labelling	P1
Self-drying	Yes
Layer thickness	1-50 mm
Emissions TVOC 28 days $\mu\text{g}/\text{m}^2 \times \text{h}$	<10
Compliant with AMA Hus	Yes
pH	10,5
Contains casein	No
Contains slag	No
Waterborne underfloor heating	Yes, min 10 mm over pipes *
Electric underfloor heating	Yes, min 5 mm over coils *
Floating structures	Yes
Sloping installation	Yes
Stable against moisture damage	Yes

*Total layer thickness is dependent on relevant structure. A thicker levelling layer ensures better heat distribution. Always follow the supplier's instructions

FLOOR CONSTRUCTION

LEVELLING WITH ADHESION

TM Rotavjämning K can be used in both structures with adhesion to the surface and in floating structures where there is no adhesion to the underlying substrate.

SUBSTRATE	PUMP TRUCK
Concrete	10-60 mm**
Lightweight concrete	10-20 mm
Chipboard	10-50 mm*

Timber flooring	10-50 mm
Ceramic/natural stone	10-50 mm

SUBSTRATE	MOBILE PUMP
Concrete	10-50 mm
Lightweight concrete	10-20 mm
Chipboard	10-50 mm*
Timber flooring	10-50 mm
Ceramic/natural stone	10-50 mm

SUBSTRATE	MANUAL APPLICATION
Concrete	1-50 mm
Lightweight concrete	6-20 mm
Chipboard	1-50 mm*
Timber flooring	1-50 mm
Ceramic/natural stone	1-50 mm

* Take into account risk of sag. The product is intended for application to an inelastic substrate. The thickness of chipboard must be at least 22 mm. If the spacing of joists is greater than cc300, the levelling compound's height of pour must be at least 12 mm.

** See our substrate guide at www.tmprogress.se

SUBSTRATE WITH ADHESION

Make sure that the substrate is sufficiently dry and free of dust, cement, grease, paint or other contaminants which may prevent adhesion. Sand or mill off any sludge layer. Smooth and dense surfaces may need to be roughened to ensure adhesion. The substrate's surface tensile strength should be at least 1.0 MPa for surfaces with normal load and at least 1.5 MPa for surfaces with industrial loads (see GBR's industry standard for testing).

LEVELLING WITHOUT ADHESION. FLOATING FLOORS

The layer thickness must always be at least 30 mm and must always be reinforced. Larger surfaces should be divided into smaller areas. Surface layers should be applied within 3-7 days. If the surface layer is sensitive to moisture, the levelling layer must be covered or treated with diluted primer (1+5) after one two days while drying. Take the above into account when estimating drying times. Contact TM Progress for more information. The purpose of laying a floating structure is for it to be fixed to the substrate and be able to move freely laterally. To achieve this, the surface of the substrate must be smooth. The substrate may need to be sanded, levelled or made smooth in some other way under the floating structure. Floating floor structures are not suitable for heavy scattered or mobile loads.

APPROPRIATE SURFACE LAYERS

Use of the self-drying properties and hence the resulting short time before application of the surface layer requires the surface layer to be impervious to moisture and the underlying floor structure must be as dry as required for the surface layer before levelling takes place. See our surface layer guide at www.tmprogress.se

DELIVERY

DELIVERY

TM Rotavjämning K is supplied in sacks with carry handles and in pump trucks, delivered via a hose.

SACK	
Sack	20 kg
No. of sacks per pallet	48

No. of kg per pallet	960 kg
Mixed pallets	Yes
Min. delivery	20 kg
PUMP TRUCK	
Delivery by pump truck	Yes
Min. delivery	500 kg

Temperature, substrate	10-25 °C
Temperature, air	10-25 °C
Layer thickness	1-50 mm
Pot life	20 min
Wet time	15 min
Can be walked on after	1-3 hours

PREPARATIONS

TEMPERATURE

The temperature is extremely important for successful results. 10 °C for the substrate, the material and the indoor temperature is the minimum level defined in AMA Hus 11. The temperature of the floor structure should be checked in plenty of time prior to priming. A higher temperature is very beneficial in terms of both quality and drying time.

PRIMING

Always prime the substrate with TM Primer 001 as instructed in the product's data sheet. The primer is applied 1-10 hours before levelling and must in any event be allowed to dry before levelling. However, the primer must not be left for more than 2 days as there is then a major risk of construction dust and other loose contaminants which may jeopardise adhesion settling on the surface of the primer. Note that thorough priming is particularly important for industrial flooring. Contact TM Progress for more information.

TEMPERATURE,SUBSTRATE	TEMPERATURE,STORAGE
10-25 °C	5-25 °C

LEVELLING

If the slope and curvature of the substrate deviates from the prescribed tolerance, the floor should be levelled using a spirit level or laser. Setting out height-adjusted level pins will allow you to ensure when laying the levelling compound that the layer thickness is sufficient to meet the tolerances.

MIXING AND APPLICATION

MIXING

Always use clean water and clean equipment. When mixing in a bucket, measure out the right amount of water into the container, add the dry mortar and mix using a drilling machine fitted with a whisk or a mixer for at least two minutes. Check that the levelling compound is homogeneous, free-flowing, contains no lumps, is well mixed and free from separation. When defining a slope, reduce the water volume to ensure an appropriate consistency.

Material required	1.65 kg powder/sq m/mm
Temperature, dry mortar	10-25 °C
Storage time, dry mortar	6 months
Water temperature	+5-20 °C
Water requirement	3.4-4 litres per 20 kg sack (17-20%)
Mixing time	2 minutes
Levelling EN 12706	120-140 mm
Hose length, mobile pump	Min. 60 metres

LAYING

Pour or pump out the ready-mixed levelling compound in widths on the substrate. Lay each new width right next to an old width as soon as possible so that the compound flows together to form a flat, even coating. Make the widths no more than about 10 metres wide by using TM side form strips. Work the levelling compound using a notched trowel or spiked roller in order to achieve maximum smoothness.

FINISHING AND CLEANING UP

The half-set levelling compound can easily be shaped or cut. Clean tool immediately with water. The set levelling compound can only be removed mechanically.

DRYING AND COATABILITY

DRYING AND COATABILITY

The drying time of the levelling compound is affected by the layer thickness, the temperature of the floor structure and air and the relative humidity on the premises. Good ventilation on the premises is a prerequisite for effective drying.

TM Rotavjämning K is self-drying, which means that the surface strength is quickly sufficient for coating and that the water in the levelling is bonded chemically during the setting process. The product can be coated within 1-3 days. However, surfaces designated for heavier loads require 5-10 days before laying the surface layer and starting to use the area. If the planned surface layer is unable to withstand moisture and it is necessary to wait for an appropriate RH, after 5-10 days the surface should be covered or treated with diluted primer (1+5) for the remainder of the drying time.

A levelling compound can never be drier than its substrate and cannot deal with surplus moisture from it. The product can be laid on concrete with up to 95 % RH, but the self-drying function requires that the relative moisture content of the underlying structure does not exceed the moisture content required for the planned surface layer. Note that the levelling compound is unable to withstand shrinkage movements or settling from the drying of the substrate.

Drying on one side due for example to a floating structure prolongs the drying time.

To prevent excessively fast drying and a risk of cracking, the levelling compound applied/laid must not be exposed to draughts, high temperature or direct sunlight.

Moderate load

Processing time	15 min
Can be walked on after	1-3 hours
Time before forced drying	3 days
Coatable	1-3 days
Capable of withstanding full load	1 day per mm of layer thickness
Time before underfloor heating	1 day per mm of layer thickness (max. 50 mm)

Industrial load

Processing time	15 min
Can be walked on after	1-3 hours
Time before forced drying	3 days
Coatable	5-10 days
Capable of withstanding full load	1 day per mm of layer thickness
Time before underfloor heating	1 day per mm of layer thickness (max. 50 mm)



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NOTE

This product sheet aims to provide technical information about the product that we supply and to provide advice, guidelines and recommendations on its use as far as possible. We are responsible for the technical properties of the product as specified in the table above, but we cannot accept responsibility for local conditions and any consequences these may have for the end result. However, in our contracts we assure the quality of these factors as well. That said, we are unable to guarantee the quality of other products that may be used in the same structure. Always follow the relevant supplier's instructions for each material.



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