

# TM Express K

TM Express is a normal-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
- Heated floors
- Can be walked on after 1-3 hours
- Fibre-reinforced
- 20 kg sacks with carry handles
- Delivery by pump truck

## APPLICATION

TM Express 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 with moderate load levels, without industrial load.

## PROPERTIES OF THE SET LEVELLING COMPOUND

Flexural strength EN 13813	F5
Compressive strength EN 13813	C20
Surface tensile strength	>1.5 MPa
Abrasion resistance EN 13813	RWFC 350
Release of corrosive substances	CT
Fire class	A1
Free shrinkage	<0.05 %
P labelling	P2
Normal-drying	Yes
Layer thickness	10-40 mm
Emissions TVOC 28 days µg/m <sup>2</sup> x h	<60
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
Slope building	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 Express 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. The product must always be coated.

SUBSTRATE	PUMP TRUCK
Concrete	10-40 mm
Lightweight concrete	10-20 mm
Chipboard	10-40 mm*

SUBSTRATE	MOBILE PUMP
Concrete	10-40 mm
Lightweight concrete	10-20 mm
Ceramic/natural stone	10-40 mm

SUBSTRATE	MANUAL APPLICATION
Concrete	1-40 mm
Lightweight concrete	6-20 mm
Ceramic/natural stone	1-40 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](http://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 strength must be at least 1.0 MPa.

## LEVELLING WITHOUT ADHESION. FLOATING STRUCTURE

The layer thickness must always be at least 30 mm and must always be reinforced. Larger surfaces should be divided into smaller areas.

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. Contact TM Progress for more information.

## APPROPRIATE SURFACE LAYERS

TM Express K is intended to be given a surface coating. See our surface layer guide.

## DELIVERY

### DELIVERY

TM Express is supplied in tightly sealed sacks with carry handles and can also be delivered by pump truck 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

## 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 good time before 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 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 primer.

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 /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	135-145 mm
Hose length, mobile pump	Min. 60 metres

### APPLICATION

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.

Temperature, substrate	10-25 °C
Temperature, air	10-25 °C
Layer thickness	10-40 mm
Pot life	20 min
Wet time	15 min
Walkable after	1-3 hours

### SUPPLEMENTARY WORK AND CLEANING

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 Express K is normal-drying and the guideline value for drying time is 24 hours/mm at 20 °C, 50% RF and with good air circulation. Levelling layers thicker than 40 mm, drying on one side, lower temperature or higher humidity will prolong the drying time. The product can be laid on concrete with up to 95% RF but note that the levelling compound can never be drier than the substrate. 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.

Processing time	15 min
Can be walked on after	1-3 hours
Coatable:	
0-30 mm	1 day per mm of layer thickness
30-60mm	2-3 days per mm of layer thickness
Capable of withstanding full load:	
0-30 mm	1 day per mm of layer thickness
30-60mm	2-3 days per mm of layer thickness
Time before underfloor heating:	
0-30 mm	1 day per mm of layer thickness
30-60mm	2-3 days per mm of layer thickness

### NOTE

This product sheet aims to provide technical information on the product which we supply and to provide advice, guidelines and recommendations on its use where 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 results. 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.