



Expansion joints

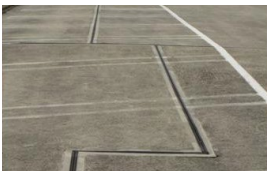
Infrastructure | Buildings | Industrial structures

TENSA® – Compression profile



TENSA® COMPRESS A

The tried-and-tested, all-purpose dilatation profile for movements from 12 to 65 mm.



mageba



Expansion joints

Applications and important aspects

Principle

The TENSA®COMPRESS A dilatation profile is a compression profile designed to compensate for expansion movements of up to 65mm and to seal joints and gaps. The TENSA®COMPRESS A dilatation profile is secured by adhesive and prestressed to absorb longitudinal, lateral and vertical movements in the building's structure. The specially shaped internal ribs ensure long-term stability in all profile positions. The TENSA®COMPRESS A dilatation profile is also resistant to road salt, fuels, lubricants, UV radiation and ozone.

Application areas

To absorb movements and seal joints and gaps intended to be driven over in bridges, ramps, parking decks, industrial flooring etc., the profile can be installed in milled-out concrete joints or in steel or epoxy-edged structures.

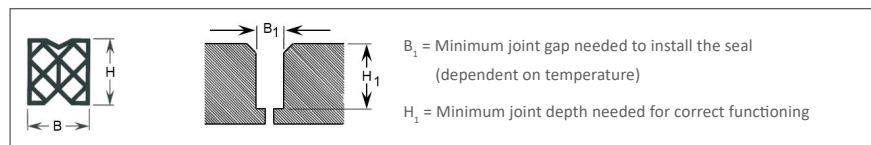
As long as the edge of the joint is suitable, the TENSA®COMPRESS A dilatation profile can accommodate loads and also be installed on bends and gradients.

Use of our MULTIFIX® sliding adhesive makes it easier to insert the profile and ensures a reliable bond at the joint flanks.



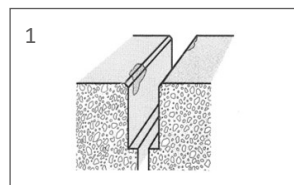
1 As used in a car park

Types, dimensions and expansion limits

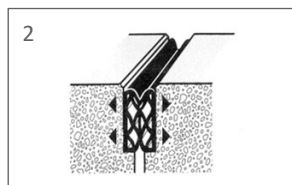


Product name	Profile dimensions			Movement capacity	Joint gap		Min. dimensions at installation		Weight	consumption of MULTIFIX® adhesive
	Width B	Height H	Length L		min.	max.	B_1	H_1		
	[mm]	[mm]	[m]		[mm]	[mm]	[mm]	[mm]		
COMPRESS A 21-12	36	35	30	12	18	30	24	45	0.5	10.5
COMPRESS A 25-20	46	37	30	20	20	40	30	50	0.8	11.2
COMPRESS A 36-22	56	55	30	22	27	49	38	65	1.4	16.5
COMPRESS A 45-30	68	70	20	30	30	60	45	85	2.4	21.0
COMPRESS A 55-35	80	87	20	35	35	70	55	100	3.7	26.0
COMPRESS A 70-45	107	90	12	45	50	95	72	110	4.7	27.0
COMPRESS A 90-65	135	100	12	65	55	120	90	130	5.7	28.5

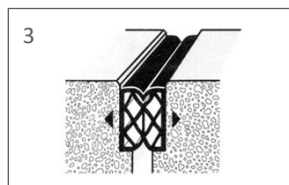
Movements and forces



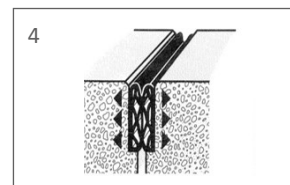
Milled joint in concrete, with broken-away area repaired



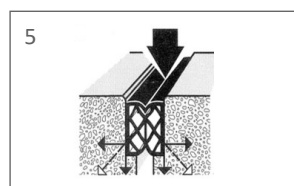
Positioning for moderate ambient temperatures (best time to install)



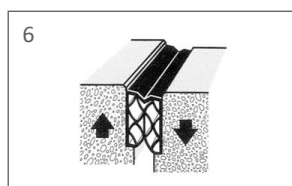
Absorption of horizontal movements: maximum joint opening



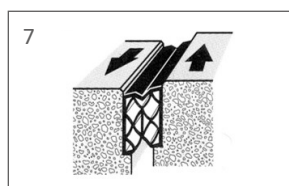
Absorption of horizontal movements: minimum joint opening



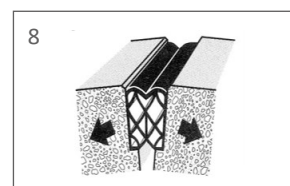
Absorption and distribution of vertical loads



Facilitation of vertical movements



Facilitation of horizontal movements (parallel to joint)



Facilitation of torsional movements at the joint flanks

Variations

Joints without special edge structure

If no mechanical loads at the joint edges are anticipated, the TENSACOMPRESS A dilatation profiles can be installed directly after the joint has been suitably prepared. The joint flanks must be parallel and milled out to the correct depth; they must not have any cracks, broken-away areas or uneven surfaces. If the work is carried out carefully, the joints can also be formed with planed timber or smooth plastic strips. The conicity or slope of the joint flanks towards the outside must not exceed 3°, and the butt-jointed areas must be level. Before bonding in the elastomeric profiles, damaged joint flanks must be repaired, after which the joint gaps must be cleaned with a wire brush or sand-blasted, then blown clean with a compressed air jet. For a reliable, permanent bond, the joint flanks must be absolutely clean, dry and firm.

TENSACOMPRESS A installation tools

Smaller seals can be pushed into the joint to the desired depth with a caulking tool and rubber-faced hammer. Note that the profiles must not be stretched during installation.

Larger seals should be guided into the joint gap with a joint ram (see picture 1).

Procedure:

- 1 Insert the joint ram at one side of the gap until the seal is in position.
- 2 Press the seal into the gap with the ram.
- 3 Make sure that the complete seal is correctly positioned and uniform in appearance.
- 4 Joint installation rams can be obtained from mageba if needed.

Intersection with closed-pore cellular rubber

The TENSACOMPRESS A dilatation profile can follow contours in the concrete surface.

Detail A

Choose the largest possible curve radii (R).

(R = approx. 15-25 cm depending on size of profile)

Detail B

Cutting of seal to form a corner.

Detail C

Intersection with closed-pore cellular rubber.

These tasks must be performed with particular care.

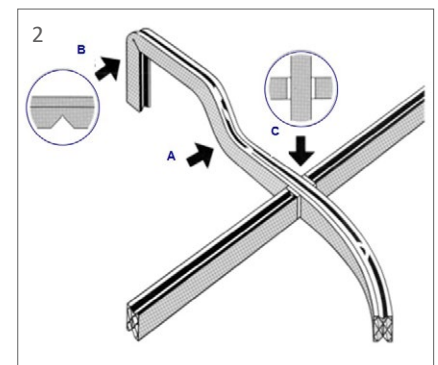
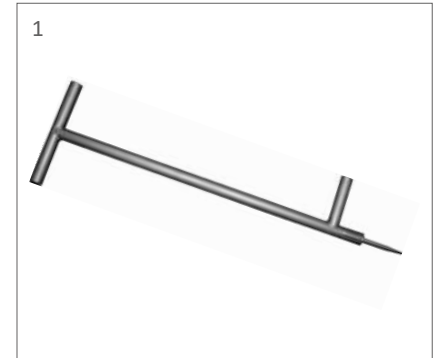
MULTIFIX® adhesive and sealing system

MULTIFIX® is a single-component, pasty adhesion and sealing compound on the basis of silane-modified polymers that will cure under humidity to form an elastic product.

Even in an uncured condition, MULTIFIX® provides excellent adhesion characteristics so that great holding force is achieved as soon as the parts to be joined are put together.

Fields of application:

- Primer-free gluing and sealing of polyester (GRP), PVC, acrylic glass, polystyrene, Makrolon, EPDM, steel, stainless steel, aluminium, concrete, clinker bricks, marble, granite, glass, and wood.
- Sealing and adhesion also possible on wet surfaces.



- 1 Joint ram
- 2 Detail of corners/intersections
- 3 Detail at kerb
- 4 Installation with caulking tool



Expansion joints

Instructions for installation & tender texts

Preparing the joint gap

Pre-formed or milled-out joints without special edge profiles must be inspected for cracks, uneven surfaces or broken-away areas. These must be rectified before installing the seal. The concrete must have dried sufficiently before the joint gaps are milled out to the prescribed width and depth. It is especially important for the joint flanks to be cleaned (e.g. by sanding or sand-blasting), after which the joint should be blown clean with a compressed air jet to make sure that all dirt is removed.

Bonding procedure

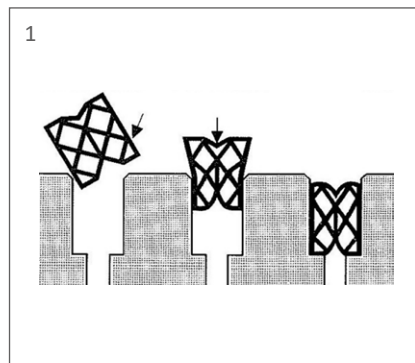
If the Tensa®COMPRESS A dilatation profile is inserted into a preformed joint gap, it must be rolled or pressed into the joint gap. To simplify this process, the adhesive should act initially as a slip agent, with a delayed bonding effect. MULTIFIX® slip agent/adhesive has these properties. It should be applied to the side flanks of the joint, so that when the elastomeric profile is inserted the adhesive is forced into, rather than out of the joint gap (this will avoid stains). High temperatures slightly shorten the slip time and speed up the bonding action. Low temperatures, on the other hand, delay the bonding action considerably; for this reason the seal should not be installed at ambient temperatures below +5 °C.

Method of installation

When installing the elastomeric seal, care must be taken to ensure that it is not exposed to tension or excessive compression along the line of the joint, and the seal must not be twisted under any circumstance.

Shortly before the seal is inserted, the two flanks of the joint are to be coated with MULTIFIX® slip agent/adhesive. If the ambient temperature is high, make due allowance for the reduced slip time of the adhesive by installing the seal in correspondingly shorter sections.

Using a suitable tool, press the seal into the joint gap as shown in the illustration (1).



1 Method of installation

Tender texts

Sealing joints with high-quality permanently elastic EPDM compression profiles. The joint gap must first be checked for its nominal dimensions, corrected if necessary and cleaned to remove dirt and other deposits. The profile is to be secured using MULTIFIX® slip-agent/adhesive in accordance with the supplier's instructions.

Brand: Tensa®COMPRESS A
incl. MULTIFIX® adhesive

Joint gap: 20-40 mm

Permissible expansion: 20 mm

Company: mageba sa

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Project references



St. Jakob Park Basel, CH



EFH Wolfhausen, CH



Station Uster, CH



Balance Bülach, CH

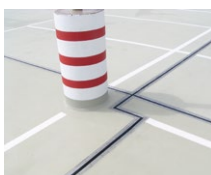
Product groups (building construction)



Bearings



Vibration damping



Expansion joints

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