



Expansion joints

Infrastructure | Buildings | Industrial structures

TENSA[®] – dilatation profile



TENSA[®] COMPRESS N

The tried-and-tested permanently elastic dilatation profile for movements of up to 20 mm.



mageba



Properties & Benefits

Principle

The TENSA®COMPRESS N dilatation profile is a permanently elastic compression strip that seals joint gaps by a pretension action.

Its cross-section is designed in such a way that compression causes as few webs of the material as possible to make contact with one another, so that maximum clearance for movement is obtained.

The V-shaped recess on the upper surface clearly indicates the direction in which the profile will compress, and ensures a neat, harmonious appearance along the full length of the joint.

The TENSA®COMPRESS N dilatation profile is ideal for preventing rainwater, air, wind and noise from entering, and helps to retain interior heat or low temperatures.

Application areas

The TENSA®COMPRESS N dilatation profile is easy to use for a variety of building and civil engineering purposes. Joints can be sealed on the frontages of buildings such as factories, parking garages, storehouses and apartment blocks, and also in tunnels, underground railways etc. The EPDM material from which the profiles are produced is formulated and manufactured in such a way that excellent resistance to ageing and weather effects is achieved.

Product benefits

Water and wind protection

The profile itself and both its side surfaces, which press against the flanks of the joint gap, are absolutely water- and windproof, and designed to adapt as effectively as possible to the shape of the joint gap. The sealing effect can only be influenced by the adjacent flanks of the joint gap.

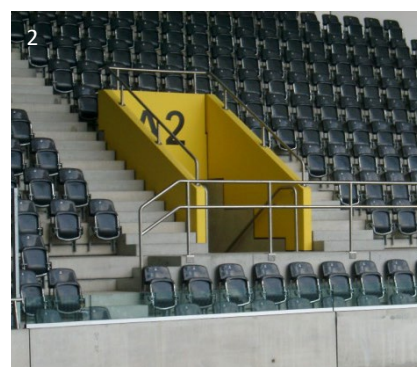
Noise insulation

The soft, elastic profiles do not transmit any structure-borne noise either along the joint line or through the joint from one structural element to the next.

Airborne noise is suppressed by the quality of the rubber and the air in the hollow spaces of the profile to such an extent that when measured at a 20 mm wide joint in a 20 cm thick concrete wall, no increase in noise transmission can be detected in the joint area.

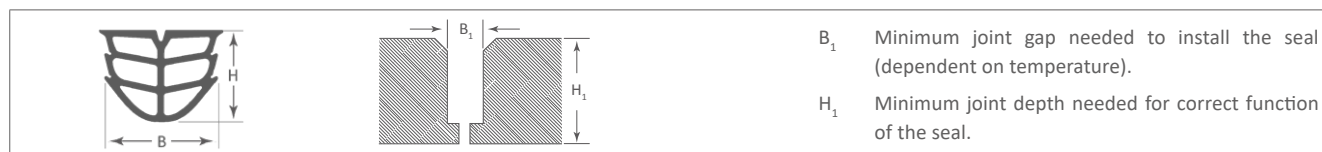
Energy losses

No airflow exchange is measurable in joints correctly sealed with TENSA®COMPRESS N dilatation profiles, so that warm air cannot escape in an uncontrolled manner. The grade of rubber used for the profiles is a poor conductor of heat ($\lambda = 0.25$); in conjunction with the profile's separate air chambers, the K value is low, that is to say very good for insulation purposes.



1 Detail of a corner version
2 Application example in concrete elements

Product series, dimensions and expansion limits



Profile number	Profile colour	Profile dimensions			Movement capacity	Joint gap		Min. dimensions at installation		Weight
		Width B	Height H	Length L		min.	max.	B_1	H_1	
		[mm]	[mm]	[m]		[mm]	[mm]	[mm]	[mm]	
COMPRESS N 9-4	black	16	16	50	4	7	11	9	25	0.12
COMPRESS N 10-6	black	18	16	50	6	8	14	10	25	0.14
COMPRESS N 15-7	black	25	20	25	7	12	19	15	30	0.24
COMPRESS N 20-9	black	34	25	25	9	16	25	20	40	0.45
COMPRESS N 25-10	black	42	30	25	10	21	31	25	45	0.47
COMPRESS N 32-18	black	63	45	25	18	27	45	32	70	1.03
COMPRESS N 50-20	black	83	60	25	20	40	60	50	90	1.75
COMPRESS N 9-3 G	grey	16	16	50	3	7	10	9	25	0.11
COMPRESS N 10-4 G	grey	18	16	50	4	9	13	10	25	0.14
COMPRESS N 15-6 G	grey	25	20	50	6	12	18	15	30	0.26
COMPRESS N 20-8 G	grey	34	25	25	8	16	24	20	40	0.4
COMPRESS N 25-10 G	grey	42	30	25	10	20	30	25	40	0.6

Variants & Installation

Possible sealing methods

Version 1: Flush finish

The seal is flush with the surface of the structure and therefore runs uniformly throughout the section of the building that is being worked on. The V-section recess on the upper surface of the profile gives it a neat, harmonious appearance along the entire length of the joint. This is a technically effective type of seal that can be employed anywhere between two structural elements.

Application areas:

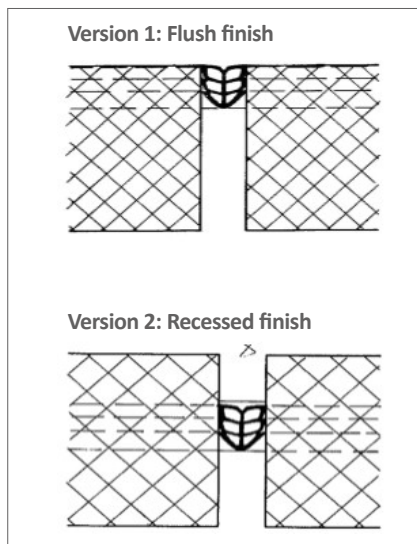
- Warehouses, parking lots and apartment blocks
- Stadiums
- Supporting walls
- Inner linings of underground structures such as tunnels and subway stations

Version 2: Recessed position

The seal is recessed into the joint, so that the shadow joint formed creates a modern impression when used for frontages. However, it is more difficult to install the seal in this way, especially if the joint gap is narrow and of considerable depth.

Application areas:

- Warehouses
- School houses
- Shelters and pavilions
- Factory buildings
- Prefabricated element construction, frontages



Installation procedure

Preparing the joint flanks

- The joint should be clean and its dimensions as accurate as possible.
- Damaged joint flanks and corners must be patched with mortar, which should be allowed to set sufficiently before the joint is sealed.
- Projections in the concrete and burrs must be removed, and also fillers such as Sagex or Pavatex.
- The taper or slope angle of the sides of the joint gap must not exceed 10° inwards or 5° outwards.
- Joint gaps less than 8 mm wide must be milled out to this width.

Installing the profiles

Press the TENSA®COMPRESS N dilatation profile into the joint gap without using undue force. The profiles must not be stretched when inserting. Use a suitable caulking tool and rubber-faced hammer to position the profile at the desired depth.

Sealing butt joints with adhesive

TENSA®COMPRESS N sealing profiles can be connected together most effectively with our MULTIFIX adhesive. All the surfaces to which the adhesive is applied must be dry and free from grease. When profile surfaces have just been cut, the adhesive bond is always extremely good. Older cut surfaces should be cleaned with a solvent (e.g. toluene or petrol) before applying the adhesive. Butt joints can be filled, or the profiles overlapped without filling, though this is recommended only for joints in vertical profiles. The butt joint areas can be injected with filler to obtain an elastic, permanent connection between the two profiles.

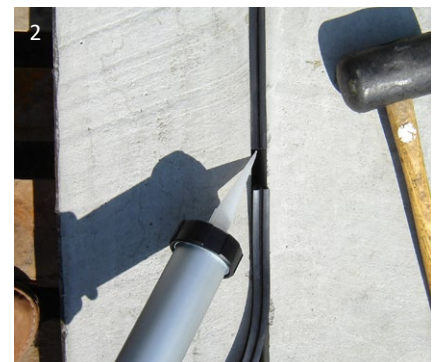
Forming corners

To run the profile around a corner, a suitably shaped section must be cut out of it. Note that one hollow cavity must be continuous. Before installing, secure the cut surfaces together with adhesive filler.

Procedure at intersections

At intersections where one profile passes over the other, the lower part of the upper profile and the corresponding upper part

of the lower profile are cut away to the necessary width. The cut surfaces should afterwards be injected with adhesive filler. If cut ends are run up to a continuous profile to form butt joints with it, these connecting faces must be secured with adhesive.



- 1 Installing with a caulking tool
- 2 Sealing butt joints with adhesive
- 3 Detail of corner cut out



Expansion joints

Text for tenders

“Black“ variant

Sealing joints with a high-quality, permanently elastic EPDM compression profile. The nominal dimensions of the joint gap must first be checked and corrected as necessary. The joint gap must be cleaned to remove deposits and other forms of contamination. Butt, corner and intersecting joints are to be sealed with a suitable single-component adhesive such as MULTIFIX.

Type: TENSA®COMPRESS N
Profile No.: 15-7
Width of joint: 15 mm
Permissible joint tolerance: 12–19 mm
Colour: black

Supplier:
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CH-8180 Bülach
Tel. : +41-44-872 40 50
Tel. : +41-44-872 41 29
E-mail : buildings.ch@mageba-group.com
www.mageba-group.com

“Grey“ variant

Sealing joints with a high-quality, permanently elastic EPDM compression profile. The nominal dimensions of the joint gap must first be checked and corrected as necessary. The joint gap must be cleaned to remove deposits and other forms of contamination. Butt, corner and intersecting joints are to be sealed with a suitable single-component adhesive such as MULTIFIX.

Type: TENSA®COMPRESS N
Profile No.: 10-4 G
Width of joint: 10 mm
Permissible joint tolerance: 9–13 mm
Colour: grey

Supplier:
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CH-8180 Bülach
Tel. : +41-44-872 40 50
Tel. : +41-44-872 41 29
E-mail : buildings.ch@mageba-group.com
www.mageba-group.com

Project references



Stade de Suisse, Bern



Bâtiment locatif, Givisiez



Schulhaus, Herrliberg



Piscine communale de Lancy, Genf

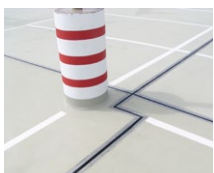
Product groups (building construction)



Structural bearings



Vibration damping



Expansion joints

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