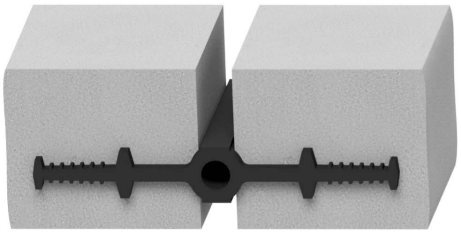
HyDratec
SPECIALIST IN CONCRETE ACCESSORIES

TECHNICAL DATA SHEET - JOINT TAPE HYDRA ELASTOMER FM

DESCRIPTION

Joint Tape HyDra Elastomer Type FM is manufactured according to DIN 7865 Part 1 and 2, from either EPDM rubber or SBR rubber, depending on request.
HyDra Elastomer Type FM is designed for sealing internal expansion joints in watertight concrete structures exposed to high hydrostatic pressure.



PROPERTIES

- High tensile and elongation strength
- Long-term flexibility and load capacity
- Suitable for watertight concrete structures subject to movement
- Resistant to naturally occurring aggressive substances in concrete
- Resistant to a broad range of chemicals (testing required for each case)
- Resistant to bitumen
- Available as a complete system
- On-site vulcanization of butt joints possible

APPLICATIONS

- Sealing of joints in concrete structures
- Sealing of internal expansion joints in cast-in-place concrete

APPLICATION AREAS

- Bridges, troughs, and tunnel structures
- Railway and road tunnels
- Water and wastewater treatment plants
- Underground parking structures

TECHNICAL INFORMATION

Material: EPDM Elastomer

Color: Black

Packaging: Standard in 25 m rolls. Also available as custom pre-assembled systems.

All mechanical properties according to DIN 7865 Part 2.

Shore A-hardness	62 +/- 5
Tensile strenght	≥ 10 MPa
Elongation at break	≥ 380 %
Compression	168 h vid 23°C ≤ 20 % 24h vid 70°C ≤ 35%
Tear resistance	≥ 8 kN/m
Aging resistance:	
Hardness change	≤ 8
Tensile stenght	≥ 9 MPa
Elongation	≥ 300 %
Low temperature performance	≤ 90 Shore A
Permanent deformation	≤ 20%
Performance after bitumen contact:	
Residual deformation	< 20 %
Tear strenght	≥ 7 MPa
Elongation at break	≥ 300 %
Ozone resistance	No cracks

STORAGE

No special storage conditions are required. However, it is recommended to store the product on pallets and in protective packaging before installation to avoid mechanical damage or exposure to external factors such as weather

ADDITIONAL INFORMATION

Hydratec offers on-site vulcanization of joint tapes and training in vulcanization techniques.

ENVIRONMENTAL & SUSTAINABILITY

BVB ID
162989

This product is listed in the Nordic Swan Ecolabel Building Product Portal and is therefore approved for use in Swan-certified buildings.

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The following diagram shows water pressure (BAR) and total deformation (movement in mm) for joint tapes manufactured in accordance with DIN 7865.

Deformation of joint tapes can occur in one or several directions/axes:

X-direction: Due to tension or compression

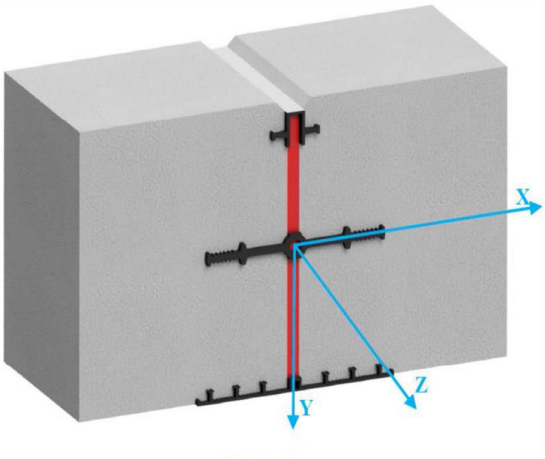
Y-direction: Due to shear forces

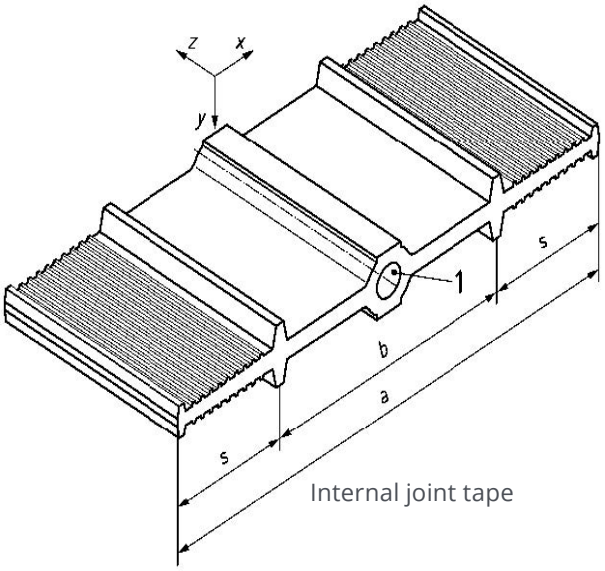
Z-direction: Due to shear forces

When selecting a joint tape, the maximum expected deformation between two buildings/components/bodies

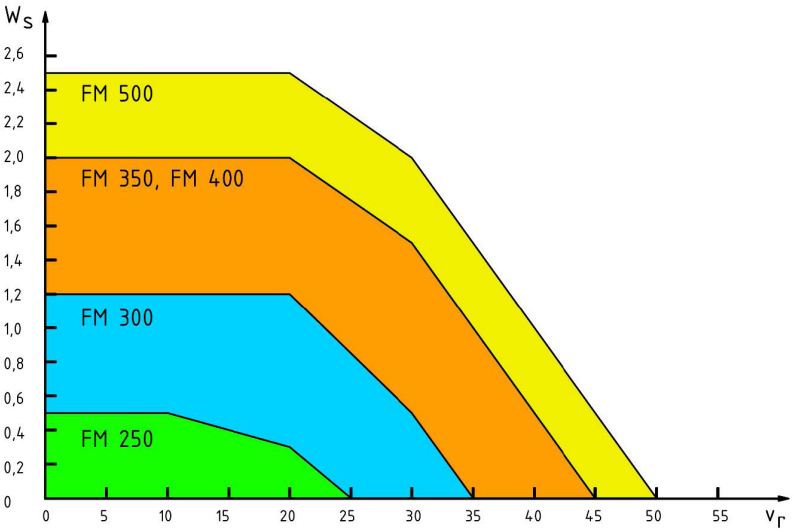
$$v_r = \sqrt{v_x^2 + v_y^2 + v_z^2}$$

Vr = Resulting deformation (in mm)
Vx = Deformation in the x-direction (in mm)
Vy = Deformation in the y-direction (in mm)
Vz = Deformation in the z-direction (in mm)





Internal joint tape



Ws=Water pressure (BAR)

Vr= Resulting deformation (in mm)

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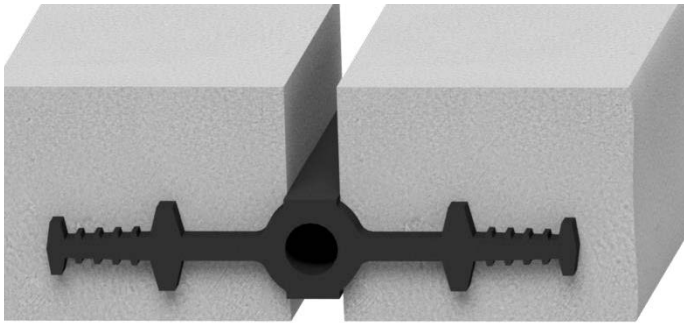
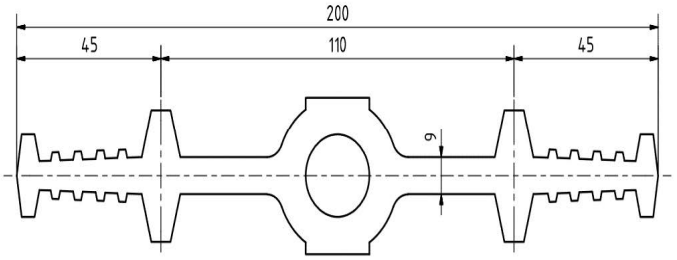
Joint Tape HyDra Elastomer FM 200 DIN 7865

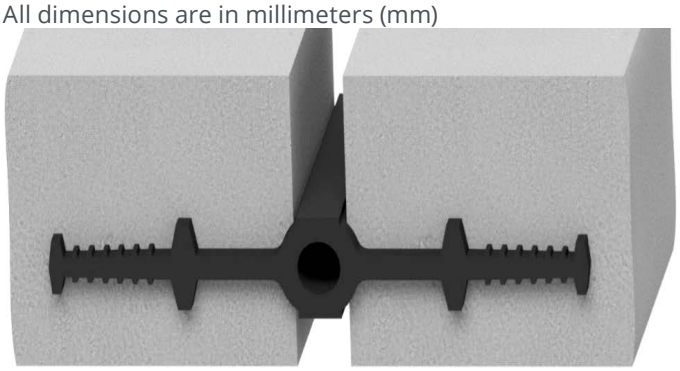
All dimensions are in millimeters (mm)

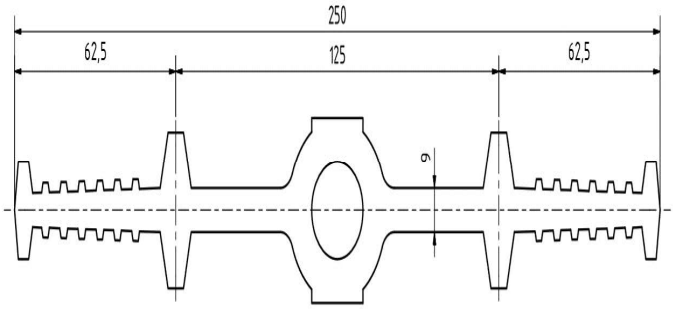




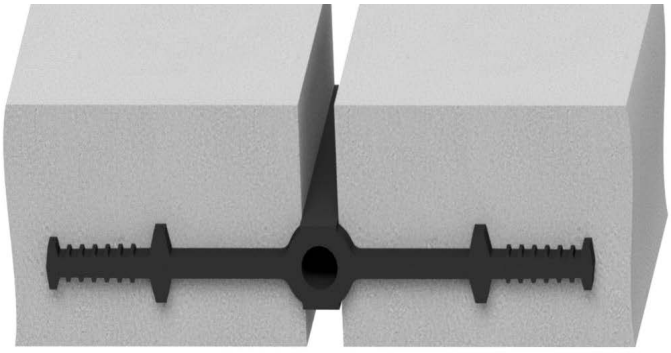
Joint Tape HyDra Elastomer FM 250 DIN 7865

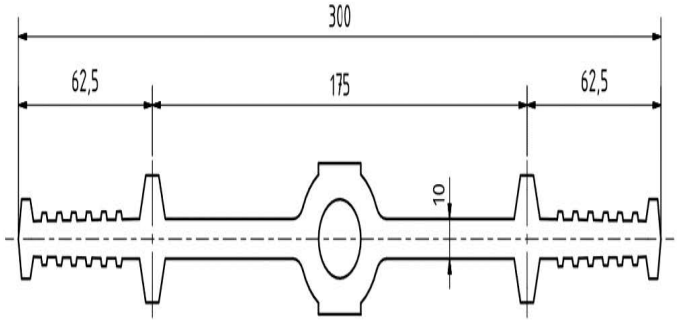
All dimensions are in millimeters (mm)





Joint Tape HyDra Elastomer FM 300 DIN 7865 All dimensions are in millimeters (mm)





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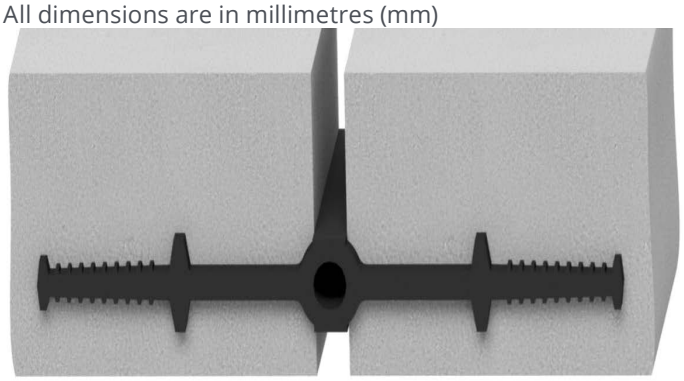
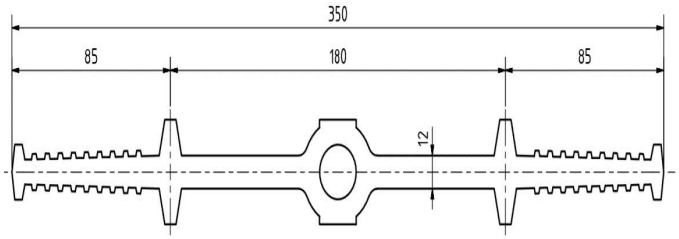
Joint Tape HyDra Elastomer FM 350 DIN 7865

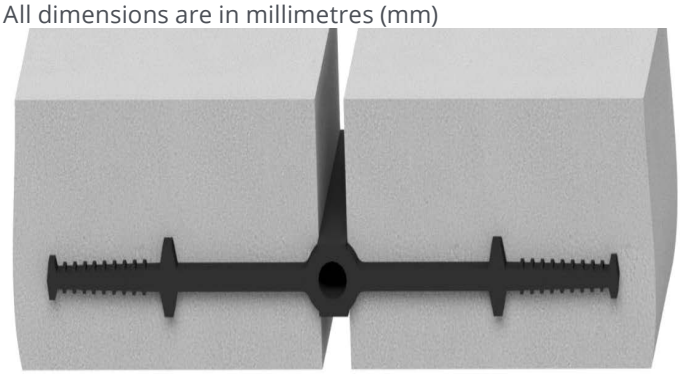
All dimensions are in millimetres (mm)

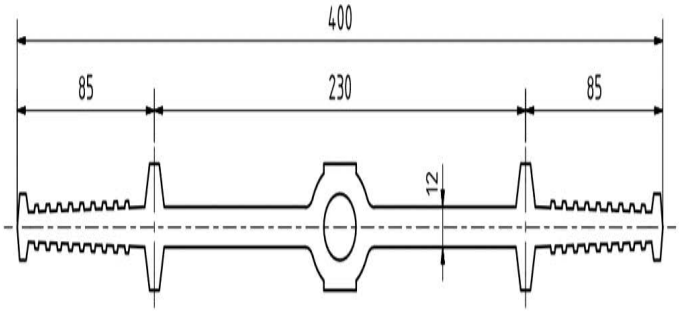




Joint Tape HyDra Elastomer FM 400 DIN 7865

All dimensions are in millimetres (mm)





Joint Tape HyDra Elastomer FM 500 DIN 7865

All dimensions are in millimetres (mm)