

08.3 HYDRO EXPANSIVE JOINT BASED OF POLYETHYLENE, BUTYL RUBBER, RESIN AND ELASTOMERIC BINDERS



PHYSICAL-MECHANICAL CHARACTERISTICS

TYPE OF ANALYSIS	METHOD	U.M.	VALUES
Shore A	ISO 868		60
Density	ISO 1183	g/cc	1,26
Tensile strength	ISO 527	N/mm ²	25
Elongation at break	ISO 527	%	300
Expansion		%	> 350
Temperature of cold flexibility	ISO 458/2	°C	-20 +50

ART.	∅ mm.	ROLLS	PACKAGE
850	20x6	ML. 8	ML. 48
852	20x10	ML. 8	ML. 48
856	20x20	ML. 5	ML. 30
858	25x20	ML. 5	ML. 30
860	20x10	ML. 8	ML. 48

The **HYDRO EXPANSIVE JOINT** has a particular chemical composition which makes it inalterable in time. Even at maximum expansion it is dimensionally stable. After several cycles of hydration and dehydration it retains the ability to increase its volume. The swelling effect of the joint is mechanically very resistant, elastic, in contact with water begins its gradual and controlled expansion, it has been studied in such a way that the fresh cement can attach to it correctly without it undergoing any deformation.

USES:

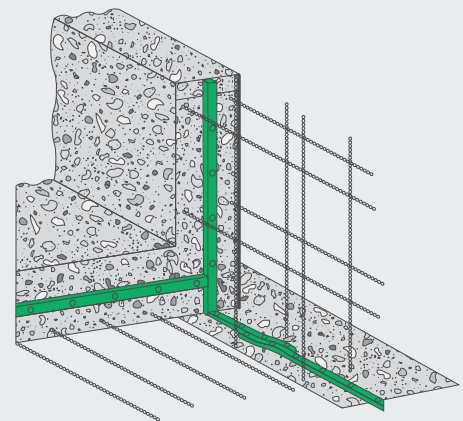
- All types of construction joints.
- Construction joints subject to both temporary and permanent hydrostatic pressure (Approx. 12 bar).
- Sealing joints between concrete and stone, concrete and masonry.
- Foundations and walls in basements, tunnels, pipes, steel, concrete and precast etc.
- Construction joints in tunnels, hydraulic works, dams, water tanks, swimming pools and sewage treatment plants.

ADVANTAGES:

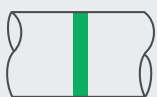
- **Controlled expansion:** it does not create cracks in the concrete even when not fully matured.
- **Dimensional stability:** maintains cohesiveness even during expansion.
- **High resistance:** resists up to 12 bar of hydrostatic pressure (approx. 120 meters water column).
- **Repeat expansion:** maintains performance even after several cycles of expansion.
- **Very flexible:** it can be fixed easily by means of riveting or by polyurethane based adhesives.
- **Simple joints:** joints executable by simple side by side positioning.

INSTALLATION METHOD

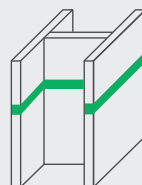
- Apply the joint in the middle of the wall with at least an extra 8/10 cm compared to the concrete.
- In the case of large surfaces, two profiles are to be applied parallel to each other in order to increase the safety margin.
- The installation surface should be clean, compact, vibrated and free of accentuated irregularities.
- Secure the joint with steel nails every 15-20 cm or with adhesive (polyurethane based adhesive or hydro expansive polyurethane).
- Avoid butt-jointing, always ensure a side by side positioning with at least a 5 cm overlap between profile and profile.



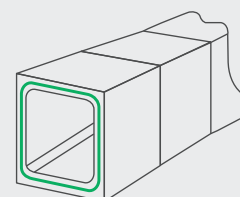
CONSTRUCTIONS JOINTS



REINFORCED CONCRETE OR STEEL PIPES



STEEL GIRDERS



REINFORCED CONCRETE PREFABRICATED ELEMENTS