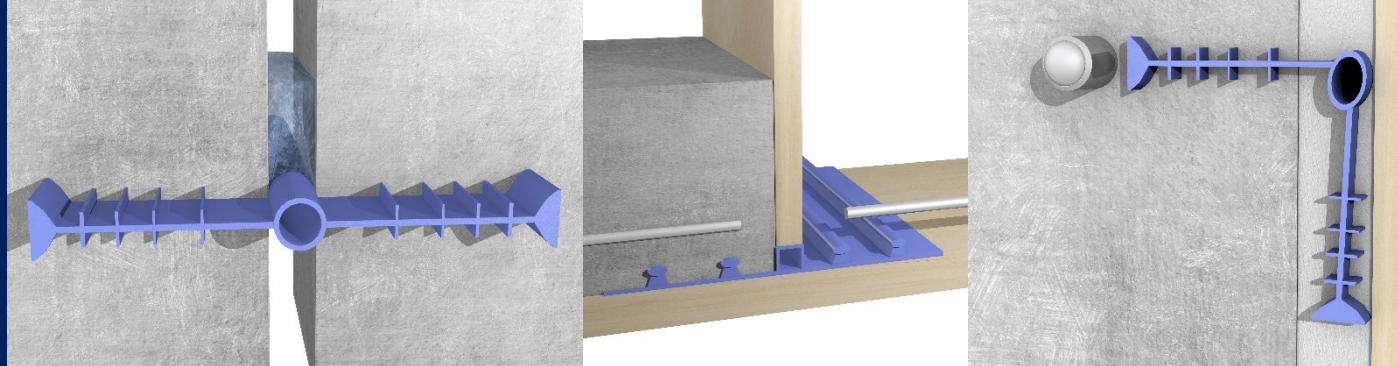




Rev 0
07/23



WATERTEK

Expansion joints



DESCRIPTION

TEKNA CHEM provides a complete range of products for the sealing of casting joints. For many years we have been present on the market with a wide range of PVC profiles with a studied section which, embedded in the concrete, act as a barrier to water infiltration both at the casting joints and for expansion joints.

Among the types available there are both the series that must be embedded in correspondence with the sharecropping of the casting thickness (WS and WSB series), and the "FLAT" series characterized by a flat side, used for laying flush with the outside (WSE and WSBE series).

APPLICATION FIELDS

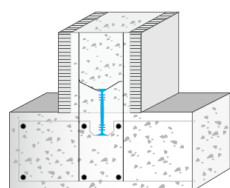
The main fields of application are:

- Foundations in general
- Underground rooms
- Galleries
- Tanks
- Dams
- Tanks
- Pools
- Retaining walls
- Major works

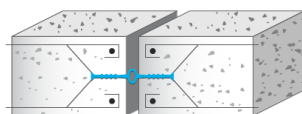
FEATURES

WATERTEK profiles are made of high quality PVC both in terms of mechanical and elastic characteristics. Especially:

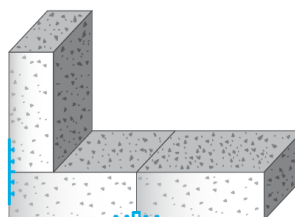
- They maintain their characteristics unchanged even at low temperatures (operating temperatures -30°C + 60°C) without time limits.
- They do not require special storage places or conditions.
- They have excellent resistance to ageing, chemical aggression in alkaline environments, brackish water and acidic solutions.
- They are designed to withstand the stresses to which the structure is subjected during the settling phase.
- They are easily welded with both hot air and heated blades.



WS



WSB



WSE - WSBE

TECHNICAL DATA SHEET



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NORMAL

Caratteristiche fisico-meccaniche	Valori	Metodo
Durezza	70/75 ± 2 Sh a 15"	ISO 868
Peso specifico	1.40 ± 0.03 g/cm ³	ISO 1183
Carico a rottura	> 12 N/mm ²	ISO 527
Allungamento a rottura	> 340 %	ISO 527
Temperatura di irrigidimento	- 32 °C	ISO 458/2
Stabilità termica a 200°C	8 ± 5' min	ISO 182/A
Infiammabilità	Classe V0	UL 94
Resistenza agli oli	Normale	

Stress Classification

WS:	Hydrostatic pressure < 0.5 atm Axial expansion < 10 mm Transverse movement < 5 mm
WSB-WSE-WSBE:	Hydrostatic pressure > 1-2 atm Axial expansion > 10-20 mm Transverse movement > 5-10 mm

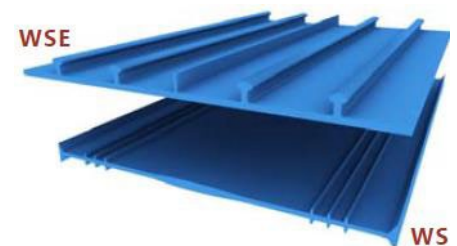
WS & WSE

Profiles for casting joints

The reworking of the pour between fresh and hardened concrete is always a structural discontinuity, through which leaks or water infiltration can occur: in this case, a specific WS PVC profile waterstop has been created with central swelling, suitable for recovery joints not subject to significant movements.

Key benefits include:

1. The constant hydraulic seal in the continuous presence of water even at medium pressures (suitable for both high and low water pitch). The seal is in fact guaranteed by a static and non-dynamic barrier and is therefore able to absorb more or less rapid cycles of raising and lowering of the water table.
2. It does not need to have concrete contact surfaces in particular conditions (cleaning and/or finishing) as it is embedded in them.
3. It does not require special storage before installation.



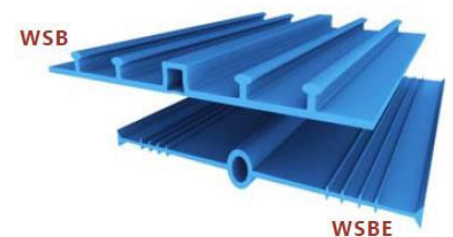
WSB AND WSBE

Profiles for expansion or structural joints

A structural joint has the dual task of absorbing movements at predetermined points of the structure, without cracks and cracks occurring in adjacent areas. It also has the function of waterproofing the interstice from the ingress of water, air and foreign bodies.

The most reliable technology to achieve this goal consists in the positioning, in the centerline of the concrete thickness, of the specific **WSB** PVC profile waterstop with a central ring bulb. Its high structural capacity, not exerted by expandable products, makes its use very important.

RT. 15 m





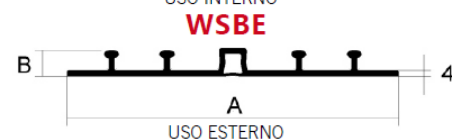
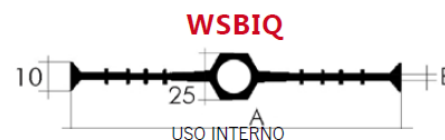
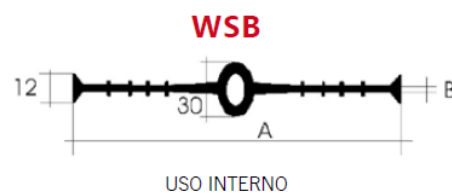
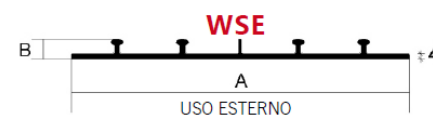
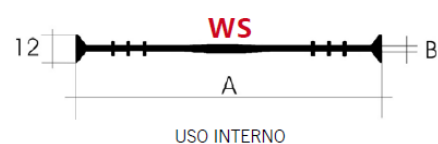
Codice	A (mm)	B (mm)	Imballo (m)
WS 150	Physical-mechanical characteristics	Values	Method
Hardness	70/75 ± 2 Sh at 15"	ISO 868	Own weight
1.40 ± 0.03 g/cm ³	ISO 1183	Tensile strength	> 12 N/mm ²
ISO 527	Elongation at break	> 340 %	ISO 527
Stiffening temperature	-32 °C	ISO 458/2	Thermal stability at 200°C
8 ± 5' min	ISO 182/A	Inflammability	Class V0

UL 94	Oil Resistance	Normal	Imballo (m)
WSE 200	200 mm	16 mm	RT. 20 m
WSE 250	250 mm	16 mm	RT. 15 m

Codice	A (mm)	B (mm)	Imballo (m)
WSB 180	180 mm	2,5 mm	RT. 25 m
WSB 200	200 mm	2,5 mm	RT. 25 m
WSB 220	220 mm	3,0 mm	Code
H (mm)	B (mm)	Packaging (m)	WS 150
150 mm	2.0 mm	RT. 50 m	WS 180
180 mm	2.5 mm	RT. 50 m	WS 200
200 mm	2.5 mm	RT. 50 m	WS 215
210 mm	3.0 mm	RT. 50 m	WS 250
250 mm	3.0 mm	RT. 25 m	WS 300

300 mm	3.0 mm	RT. 25 m	Imballo (m)
Code	H (mm)	B (mm)	Packaging (m)
WSE 200	200 mm	16 mm	RT. 20 m

WSE 250	250 mm	16 mm	RT. 15 m
WSBE 200	Code	H (mm)	B (mm)
Packaging (m)	WSB 180	180 mm	2.5 mm



INSTALLATION METHODS

WS & WSB

The WS and WSB profiles are embedded in the centrally positioned concrete castings. The profiles must be suitably anchored to the reinforcement with iron wire or with special clip-on clips, in order to ensure a certain stability at the time of casting, avoiding bends. When using the WS, the two jets must be made in contact; with WSB, the castings will have a cavity equal to the width of the bulb filled with elastic material, such as to prevent clogging with rigid parts of the joint itself.

WSE and WSBE

The WSE and WSBE profiles are used flush with the outer layer of the concrete casting. They are fixed directly on the formwork or on the substrate. The side with the appendages must be embedded in the concrete, the central tab of the WSE series guarantees the correct installation in the centerline.

WELDING

IMPORTANT: it is recommended to take the utmost care in the vibration of the concrete near the profile, in order to obtain an optimal compaction of the conglomerate.

All WATERTEK profiles can be welded directly using two tools:

- The electronic thermal sword that allows linear welding, T and L, obtained by positioning the edges to be glued in contact with the blade for 15/20 sec. at a temperature of 150°/180°C.



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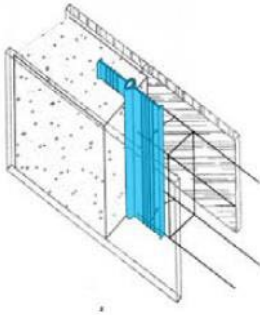


- The hot air shower head is used by positioning the two flaps to be welded in contact and acting with the hot air shower head at a temperature of 400-600°C for 15/20 sec.

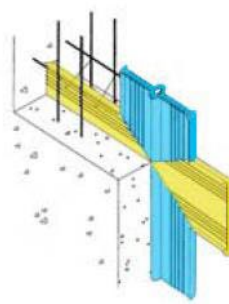
WARNINGS

- Make sure the two surfaces are cut so that the ends fit together.
- Keep surfaces in contact with the heat source until both flaps are sufficiently fused.
- Check that the weld is uniform over the entire contact surface.
- Use a mask and gloves.

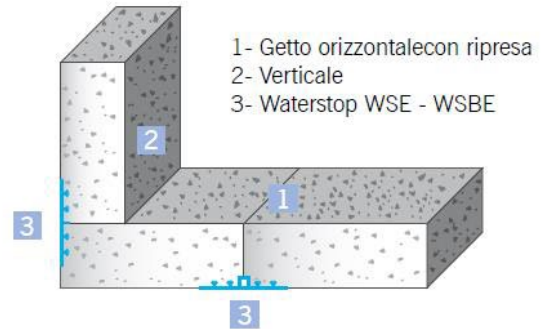
APPLICATIONS ON MASONRY



WSB: Getto verticale



WSB: Getto orizzontale e verticale con ripresa



WSE - WSBE: Getto orizzontale e verticale con ripresa

LEGAL

The information contained in this data sheet, although it represents the most advanced stage of knowledge, does not exempt the user from carrying out accurate preliminary tests in his own conditions of use and operation. We therefore decline any responsibility for improper use of the product.