

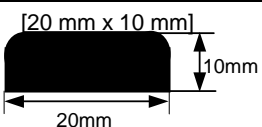
MASTERFLEX[®] 610

Hydroswellung waterbars for joints

DESCRIPTION

MASTERFLEX 610 is a hydroswellung waterbar, ready for installation in joints to render the joints leakproof. It is based on a blend of natural & synthetic rubbers and a unique hydroswellung polymer that acts by swelling on exposure to water, to form a seal.

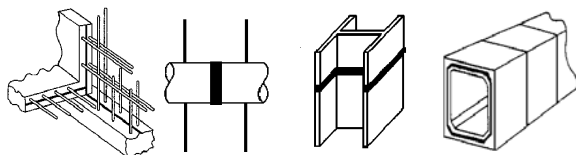
Masterflex 610 is available in below-mentioned sizes :

Size	Cross section
20 mm x 5 mm	
20 mm x 10 mm	
20mm x 20 mm	

FIELDS OF APPLICATION

MASTERFLEX 610 is recommended for all construction joints exposed to hydrostatic pressure. Application areas include joints between :

- the abutments of concrete and rock, masonry, etc.
- the rafts and walls in tunnels and basements.
- steel and concrete pipes, H-king, precast elements, etc.



FEATURES AND BENEFITS

Swells in contact with water by up to 270%	Prevents water ingress even when the joint width varies.
Water molecules held by molecular attraction	Captured water does not get transported through capillaries.
Controlled swelling	Minimise the risk of damage to concrete
Does not form foam or gas with water	Durable seal. No air bubbles to breakdown and allow leaks.

PROPERTIES

Type	Type 2	Type 3H
Swelling rate (%) JIS K 7112	120	300
Specific gravity JIS K 6350	1.20	1.18
HARDNESS (HS) JIS K 6301 (A)	47	43
Tensile strength (N/mm ²) JIS K 6301	6	5
Elongation (%) JIS K 6301	600	1000

Swelling : The degrees of swelling of **MASTERFLEX 610** when exposed to different solutions are illustrated in the chart below.

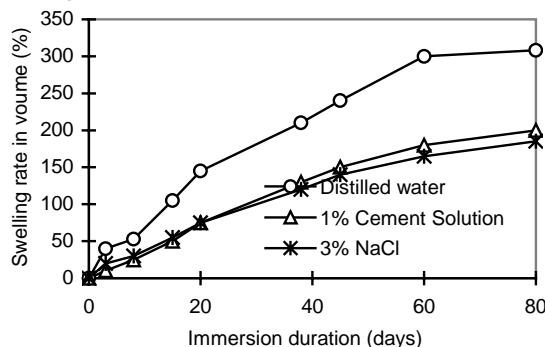
The swelling action is designed to exert adequate pressure to profile the waterbar exactly onto the joint faces, to provide a tight seal even against high hydrostatic pressures.

Note :

- The swelling action does not change the homogeneous structure of the polymer matrix.
- The swelling is confined to the part exposed to water, since the waterbar is designed not to transport the captured water through its matrix.

Typical swelling of **MASTERFLEX 610** :

Type : Type 3H
 Size : 20 mm x 10 mm x 20 mm
 Temperature : 25°C



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MASTERFLEX[®] 610

APPLICATION

Surface Preparation

Correct preparation is critical for optimum performance. Joint surfaces should be structurally sound, clean, and free from loose particles and sharp protrusions, oil, grease, or any other contaminant.

Repair any honeycombs and such other defects with a suitable Degussa repair mortar (consult local Degussa representative). Clear any standing water on the surface.

Priming

Prime the surface along a strip where **MASTERFLEX 610** will be installed and to a width slightly larger than the waterbar using **MASTERFLEX 610** Adhesive to provide adhesion to the waterbar.

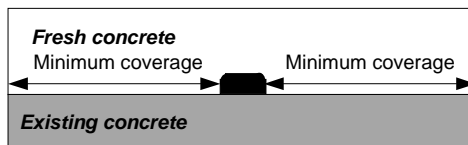
On uneven surfaces, use SONOLASTIC NP1, MASTERFLEX 611 or CONCREXIVE 2525 to level out the unevenness and provide adhesion to the waterbar.

MASTERFLEX 611 the gun grade hydroswellable sealant can be effective to provide the double safety of swelling with **MASTERFLEX 610** to watertightness on moist and also uneven surfaces.

MASTERFLEX 610 can also be fixed to the even substrate by fastening mechanically using nails at regular intervals of 25 cm.

Installation

Lay the waterbar preferably along the middle of the slab. On wide joint surfaces (greater than 100 cm), two parallel waterbars may be laid for added safety. It is important to leave the minimum coverage from both the edges of concrete to provide sufficient concrete cover to absorb the swelling stresses.



ESTIMATING DATA

	Size	Minimum coverage
Type 2	20 mm x 10 mm	Min. 9 cm
TYPE 3	20 mm x 5 mm	Min. 10 cm
	20 mm x 10 mm	Min. 10 cm
	20 mm x 20 mm	Min. 20 cm

Note : Delay coating liquid is helpful when it is difficult to keep the minimum coverage.

Do not butt the joints of **MASTERFLEX 610**. Always lay the waterbar with a 5 cm overlap at the ends.

After installation, protect **MASTERFLEX 610** and the joint area from loose dirt, sand, stones, rain, water and other liquids.

PACKAGING

MASTERFLEX 610 packed in a carton is available.

20 mm x 5 mm : 10 m per roll x 10 rolls

20 mm x 10 mm : 15 m per roll x 4 rolls

20 mm x 20 mm : 8 m per roll x 4 rolls

PRECAUTIONS

Health : **MASTERFLEX 610** is not toxic and does not normally cause any health hazard while handling. It is safe for use after taking standard precautions followed in the construction industry, such as the use of hand gloves, etc.

For Health, Safety and Environmental recommendations, please consult and follow all instructions on the product Material Safety Data Sheet.

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STATEMENT OF RESPONSIBILITY

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