

MASTERFLEX®

610 S

Water re-swellable waterbar for joints in an aggressive and highly saline environment

Description

MASTERFLEX 610 S waterbar is suitable for all construction joints subject to hydrostatic pressure from highly saline water and other aggressive environments, on one or both sides. MASTERFLEX 610 S provide simple but efficient waterproofing of construction joints. Movements in the joint are taken up by the re-swellable profile of the MASTERFLEX 610 S waterbar. MASTERFLEX 610 S has been successfully tested in aggressive solutions of various chemicals and high concentration saline solutions.

MASTERFLEX 610 S is a component of the Degussa watertight systems. Consult your representative for details.

Material composition

MASTERFLEX 610 S is based on a polymer technology, which provides flexible composites, which have very high chemical resistance and are capable of storing water in their molecular structure by increasing their volume.

MASTERFLEX 610 S performs by swelling and resists deterioration even in the following conditions: water with a very high salt content and where the water has a high concentration of various chemicals and solvents, including oils and fuels. Refer to the resistance chart, which can be provided on request.

Functional behaviour

When in contact with water the MASTERFLEX 610 S waterbars will slowly increase in volume (swell) without changing the homogeneous structure of the polymer matrix. The increase in volume by the swelling action can be > 200% (depending on type of water). The pressure of the swelling action will cause the MASTERFLEX 610 S waterbar to profile itself exactly into the joint filling all cavities and effectively stopping water seepage, even at high external water pressure.

The MASTERFLEX 610 S waterbars will not transport water through their polymer matrix and thus not act as a capillary duct. The swelling action is limited to the sides exposed to water.

Packaging

20 x 10mm 6 rolls of 10m each
60 m per carton

Installation procedure

Preparation:

All joints to be waterproofed with MASTERFLEX 610 S waterbars must first be cleaned. Free standing water and sharp protrusions must be avoided.

MASTERFLEX 610 S waterbars can be installed on moist surfaces.

MASTERFLEX 610 S waterbars are resistant to most ordinary mould release agents, but if in doubt the installed waterbar should always be protected from accidental exposure to form release agents.

Placing:

For normal joint widths of 200-400mm, the MASTERFLEX 610 S is placed in the middle of the joint. For added safety thicker walls can be fitted with 2 waterbars.

MASTERFLEX 610 S waterbars are glued into the joint with a special adhesive for MASTERFLEX 610 waterbars. On vertical surfaces the waterbar must be mechanically supported (nails on either side of the bar) until the adhesive is firm enough to take up the load.

MASTERFLEX 610 S must always be secured so that the waterbar is in close contact with the surface of the substrate as otherwise the full waterproofing effect will not be obtained.

After placing the MASTERFLEX 610 S waterbar the joint area should be kept clean and free of loose dirt and stones before concreting. The minimum concrete cover of MASTERFLEX 610 S waterbar should be 75mm.

Butt joints:

MASTERFLEX 610 S waterbars should never be butt jointed, but laid with a 20mm side by side overlap.

Technical properties*

Basis:	polymer composite
Resistance to micro-organisms:	Resistant
Water pressure resistance:	50m (5 bar)
Water seepage:	None
Swelling pressure	0.10 N/mm ² @ 7 hrs 0.19 N/mm ² @ 40 hrs

Safety precautions

As with all chemical products, care should be taken during use and storage to avoid contact with eyes mouth, skin and foodstuffs. If accidentally ingested, seek immediate medical attention. Reseal containers after use. For further information, refer to material safety data sheet.

Storage

Store under cover out of direct sunlight and protect from extremes of temperature. In tropical climates the product must be stored in a cool shaded environment.

Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage and disposal instructions refer to the Material Safety Data Sheet.

Note

Field service, where provided, does not constitute supervisory responsibility. For additional information contact your local Degussa representative.

Degussa reserves the right to have the true cause of any difficulty determined by accepted test methods.

Quality and care

All products originating from the Degussa facilities are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9001, ISO 14001 and OHSAS 18001.

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* Properties listed are only for guidance and are not a guarantee of performance.

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As all Degussa technical datasheets are updated on a regular basis it is the user's responsibility to obtain the most recent issue.

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