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# RIW WATERSTOP

Waterstop is a sodium bentonite based material designed to stop water infiltration through insitu concrete construction joints. Waterstop is an active bentonite based hydrophilic waterstop, that is designed to replace passive PVC/Rubber type waterbars, thereby eliminating the requirement of special pieces and seam welding.

REMEMBER IT'S  
**waterproof** 

# RIW WATERSTOP

## TYPICAL USES

Waterstop swells when in contact with water, forming an impermeable barrier. This swelling property allows the Waterstop to form a permanent pressure seal within the concrete joint, thus eliminating water migration over or along the waterstop.

Waterstop is designed for structural concrete, however the product requires a minimum of 75mm concrete cover to all sides. Waterstop should only be used in applications where the product is completely encapsulated within the concrete; see Detail.

When designing Type A structures (as classified in BS 8102: 2009), the product is used in construction joints in reinforced concrete, as part of the Structureseal system.

When designing Type B structures (as classified in BS 8102: 2009), the product is used in construction joints within the reinforced concrete structure.

Applications include both vertical and horizontal non-moving concrete construction joints, new to existing concrete construction, irregular surfaces, and as a puddle flange around through-wall service penetrations.

The key to the products effectiveness is its 75% sodium bentonite content, which provides superior expansion, to seal and fill voids and cracks within the concrete.

Waterstop is not designed, nor intended to function, as an expansion joint sealant.

## DURABILITY

Waterstop, when fully protected and when subjected to normal service conditions, will provide an effective barrier to the transmission of liquid water through construction joints, for the life of the building in which it has been incorporated.

Waterstop has been successfully tested by independent testing firms, to over 70m of hydrostatic water pressure, under both continuous immersion and wet/dry cycling.

Waterstop should not be pre-hydrated, by being subjected to submersion or remain in contact with water, prior to concrete placement. The product is engineered for temporary protection from inclement weather, however if it exhibits considerable swell, prior to confinement in the joint, it must be replaced with new material.

## SPECIFICATION

E40 – Designed Joints in Insitu Concrete in accordance with NBS Clause 320.

Please consult RIW for further information.

## INDEPENDENT AUTHORITY

Waterstop has been awarded British Board of Agrément Certificate No. 02/3953 covering its use as a waterbar in reinforced concrete construction joints.

## ANCILLARY PRODUCTS

**Structureseal:** a sodium bentonite waterproofing system, encapsulated between geotextile fabrics. The system forms a strong mechanical bond to concrete poured against it. See separate data sheet.

## CONSTRUCTION

### GENERAL

All construction should conform to the Building Regulations, Codes of Practice and British Standards in current use at the time the building is being constructed. In particular it is recommended that reference is made to BS 8102: 2009.

### PREPARATION

**Surface Preparation:** Construction joint surfaces should be clean and free of standing water. Loose/flaking concrete or laitance should be removed by suitable means, (scabbling, brushing, jet-washing etc). Forming of rebates/chases is not required.

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### APPLICATION

Waterstop is manufactured in light-weight, flexible coils that are easily installed in hot or cold weather conditions, by a single worker.

The product is not a self-adhesive material, and therefore Mesh is required to secure the product to concrete surfaces. For advice on fixing to metal surfaces, please contact the Technical Department.

**Installing Waterstop with Mesh:** After preparing the concrete surface, uncoil Waterstop, leaving the release paper intact, and apply exposed/black face against concrete, pushing firmly against release paper to force the waterstop into any concrete undulations. As work proceeds, remove release paper, and locate Mesh sections, over the Waterstop, lapping the ends nominally. Nail through lapping sections (fixings supplied) and provide one additional fixing in between. ie; fixings at 300mm centres.

End to end, or end to side junctions are created by simple butt joints. Ensure continuity is achieved through Mesh, by pressing ends firmly together. Start at junctions; do not stretch the Waterstop to fit, and do not provide overlaps in the Waterstop.

Waterstop may be installed as a 'puddle flange' around cast-in, through wall/slab penetrations, using tying wire to secure it in place. Where upvc type pipes are used, the 'wall' thickness should be a minimum of 3mm to prevent collapse when the waterstop expands.

On irregular surfaces, make sure the Waterstop remains in direct contact with the substrate, along the entire installation eg. old to new slab junctions. The Mesh may require additional nailing, to allow it to deform to the surface profile.

## SAFETY

Full health and safety instructions are contained on the product material safety data sheets and these must be referred to before use.

## SUPPLY

### AVAILABILITY

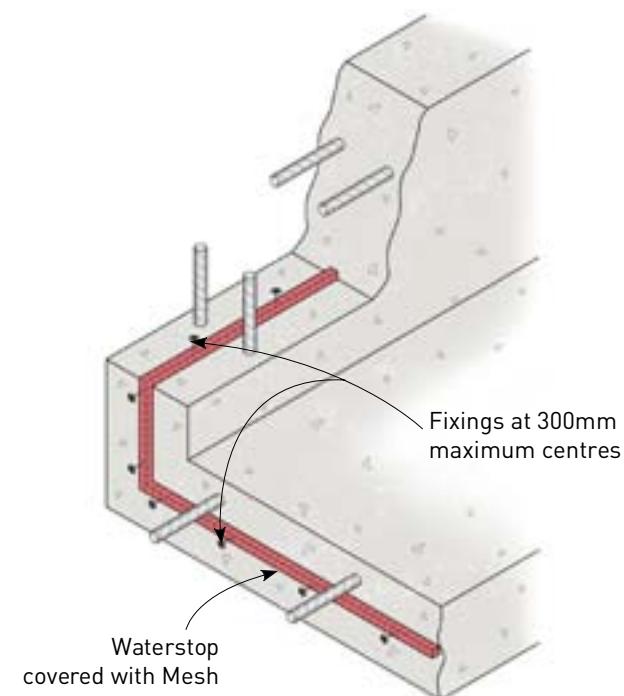
All RIW products can be obtained through Builders Merchants or approved stockists. A list of approved stockists is available from RIW's offices.

### PACKAGING

Waterstop is 25 x 19mm, supplied in 5m long coils. 6 per box. ie. 30 linear metres per pack.

### STORAGE

Waterstop and associated products must be stored in dry conditions, under cover, and away from possible contact with water. Store products above 4°C, prior to use.



**Typical Detail**

## TECHNICAL SERVICES

The RIW Technical Department is available to advise on individual projects and to prepare or assist in the preparation of specifications and drawings. A list of experienced applicators of RIW materials is available from RIW's offices.

The information in this literature was correct at the time of going to press. However, we are committed to continually improving our products and reserve the right to change product specifications.

For the latest information, please consult RIW. Conditions of use are beyond our control, therefore we cannot warrant the results to be obtained.

## RIW

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