

ECA INTERNAL PVC

Internal PVC waterstop system for passive protection of movement joints and construction joints in reinforced concrete structures



Applications

ECA INTERNAL PVC is an internally cast specially formulated PVC waterstop system manufactured in a range of sizes for use in reinforced concrete structures. Being cast into the center of the concrete member, ECA INTERNAL waterstops will provide resistance against high hydrostatic pressure from both faces. It is essential to form a continuous waterstop network at all joints to prevent the ingress or escape of moisture/ water. For changes of direction or profile only factory produced fabrications should be used with site jointing limited to simple butt welds.

Installation

Slab joints

ECA INTERNAL PVC should be supported in specially prepared split stop-end formwork which holds the waterstop in the horizontal plane so preventing displacement and folding so that half of its width will be cast into the concrete approximately half way through the thickness of the slab. Care must be taken to ensure that the waterstop is retained in the horizontal plane and that adequate compaction of concrete takes place below the web of the waterstop in order to avoid “honeycombing”. Lifting the waterstop during compaction to release entrapped air will assist in forming dense compacted concrete. After stripping the formwork supporting the waterstop, the second half can be cast into the adjoining slab with similar precautions taken with regard to “honeycombing”.

Wall joints

ECA INTERNAL PVC must be supported in split-end form work as described for slab joints, with great care taken to ensure that the waterstop does not fold over under the weight of poured concrete.

The waterstop may be securely wired to the reinforcing steel using the appropriate Secura Clips supplied, clipped over the end bulbs as shown overleaf. A fully continuous waterstop network must be formed using only factory made junctions with site joints limited to simple butt welds of similar section.

Size of waterstop Minimum Concrete Section
ECA INTERNAL PVC 160 mm – 240 mm

Advantages

- Robust profile - large solid circular end bulbs promote better anchorage and embedment into concrete and simplifies site jointing.
- Flexible - will accommodate large movements during construction and service life.
- Pliable - remains flexible at low temperatures.
- Valve action - created by concrete shrinkage around end bulbs and adjacent fin formation.
- Thick web - 10 mm thickness prevents folding over and displacement during concrete pouring.
- Common section for easy installation - for construction and expansion joints subject to thermal movement and deflection.

Physical Properties

| Property | Values |
|---------------------|-----------------------|
| Tensile Strength | ≥14 N/mm ² |
| Elongation at break | 250% |
| BS Softness | 42 |
| Specific Gravity | 1.42 |

Compounds tested in accordance with BS 2782 and are typical values.

All declared values shown in this data sheet are based on test determine under laboratory conditions and with the products sample taken directly from stock in its original packing without any alteration or modifications of its component parts.

Health and Safety

ECA INTERNAL PVC is completely non-hazardous and non-inflammable, but however care should be taken while cutting and welding the joints.

Technical Service

The Technical Department is available to assist you in the correct use of our products and its resources are at your disposal entirely without obligation.

Contact Information

Al-Faiha for Engineering Products
techsupport@alfaihaengineering.com
www.alfaihaengineering.com

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