

# Estopper Rearguard

## Externally Placed PVC Waterstop

### Description

**Estopper Rearguard** waterstops are extruded from a high quality Polyvinylchloride compound, which has been formulated to provide excellent flexibility and longevity characteristic.

They are available as straight lengths and factory produced intersections.

**Estopper Rearguard** externally placed Polyvinylchloride waterstops are suitable for use in contact with potable water.

### Uses

They are used typically in the following type of structures:-

- Basements and underground structures
- Tunnels and subways
- Water excluding structures
- Water retaining structures

### Advantages

- Simple on site jointing
- 4 bulbs profile for excellent performance
- Nailing flange for positive fixing
- Full range profile for every needs
- Factory fabricated intersections available
- Suitable for potable water usage

### Standards Compliance

- BS 2782
- ISO 527
- ISO 868

### Selection of Waterstop Size

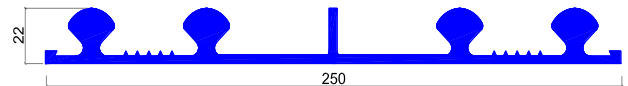
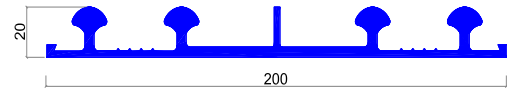
The appropriate waterstop width depends upon the concrete thickness. The width of waterstop should not be greater than the thickness of the concrete.

### Estopper PVC Waterstop Sections

#### Externally Placed Waterstops

Plain Web sections are used in contraction and construction joints

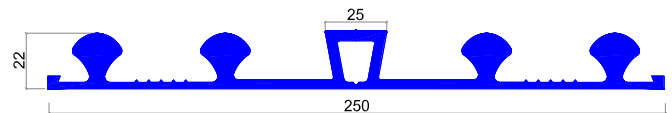
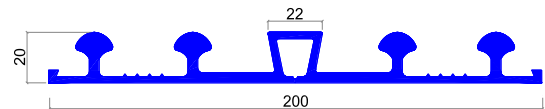
- **Estopper Rearguard C 200**
- **Estopper Rearguard C 250**



Above measurements are in mm unit.

Centre bulb sections are used in expansion, contraction and construction joints

- **Estopper Rearguard E 200**
- **Estopper Rearguard E 250**



Above measurements are in mm unit.

Externally placed **Estopper Rearguard C** waterstops incorporate a central fin to assist setting out shutter location. Externally placed **Estopper Rearguard E** waterstops incorporate a flat top centre box which allows movement to be accommodated in expansion joints.

The box also provides a sealing to support joint fillers.

**Estopper Rearguard C & E** ranges of waterstops are compatible to other **Estopper CJ and EJ** range of waterstops.

### Physical Properties

Compound	
Standard Conform	BS 2782 at 25°C
Tensile Strength	> 10.0 N/mm <sup>2</sup>
Elongation at break	> 250 %
Hardness	Shore 'A' > 70
Profiles	
Form	Extruded thermoplastic sections
Colour	Black
Hydrostatic Head	Up to 100m for 250mm profile Up to 60m for 200mm profile

### Heat Jointing Equipment (220 V)

Heat welding equipment is available from Estop Sdn Bhd. Ensure the heat welding equipments are earthed by the green wire.

### Installation Instructions

Waterstops must be installed so that they are securely held in their position while the concrete is being placed. Concrete must be fully compacted around the waterstops to ensure that no voids or porous area remain.

### Horizontal Joint

When install on ground slab where the waterstop is supported on blinding, Rearguard profile usually require no fixing. It shall be laid centrally over the joint (construction/expansion) line.

### Vertical Joint

To vertical shutter, it is installed by nailing through the outer most flanges onto the shutter and leaving the nail head held into the concrete. This may prevent the waterstop being displaced when the shuttering is struck.

### Site Jointing Instructions

Jointing of **Estopper Rearguard** range waterstop is carried out using Estop Heat Welding Equipment. The ends to be joined are cut square and held in alignment. The ends are then pressed to both side of a special heated blade, until an even, molten bead of PVC appears around the section. The heated blade is then removed and the molten ends pressed fully together. The PVC cools to form a strong fusion welded joint.

An experienced technician would performed the jointing of the waterstops to satisfaction, subject to prior training and approval by ESTOP Technical Department.

### Packing & Size

<b>Estopper Rearguard C 200</b>	200mm x 15m roll
<b>Estopper Rearguard C 250</b>	250mm x 12m roll
<b>Estopper Rearguard E 200</b>	200mm x 12m roll
<b>Estopper Rearguard E 250</b>	250mm x 12m roll

### Technical Support

Estop offers a technical support package to specifiers, end-users and contractors, as well as on site technical assistance.

### Storage

Estopper waterstops should be store under covered condition. The product has a shelf life of thirty six months.

### Precaution

Hot weld jointing of PVC waterstops results in the liberation of hydrogen chloride mist and vapour. The OEL (operational exposure limit) of 5 ppm can be exceeded in still air confined space, therefore ventilation must be provided.

### Additional Information

Estop manufactures and offers a wide range of complementary products which includes waterstops, waterproofing products, grouts, anchors, specialized flooring products. In addition, a wide range of products formulated for repair and refurbishment of spalled concrete are available.

## Important Note

*Estop products are guaranteed against defective materials and manufacture and are sold subject to its standard Terms and Conditions of Sale, copies of which may be obtained on request. Whilst Estop endeavors to ensure that any advice, recommendation, specification or information in may give is accurate and correct, it shall not, because it has no direct or continuous control over where or how its products are applied, accept any liability either directly or indirectly arising from the use of its products, whether or not in accordance with any advice, specification, recommendation or information given by it.*