

NIPPON PVC WATERSTOP

Updated July'17

Description:

Nippon PVC Waterstop is designed to provide an integral sealing system for expansion and construction joints in cast in-situ concrete. It is extruded from a pure and premium quality virgin PVC materials which is formulated to provide excellent flexibility and durability characteristics.

Nippon PVC Waterstop is designed using valve and tortuous path principles. The valve acts as baffles, in the event of joints opening as drying shrinkage or other movement occurs, the edge of valve acts as anchors, including the tensions across waterstop resulting in a sealing effect at the inner faces of the edge valve. The tortuous path profile provides greater resistance and more difficult path for water to seep around the cross section. **Nippon PVC Waterstop** products offer a fully continuous 4 bulbed design maintaining both the valve and the tortuous path principles.

Nippon PVC Waterstop has centrally place and externally place design, all centrally placed design incorporates an eyeletted, reinforced edge flange, this enables the waterstop to be easily positioned by wiring to surrounding reinforcement.

Nippon PVC Waterstop with center bulb sections design is used for expansion, contraction, movement joints. The center hollow bulb allows for movement in a structure to be accommodated whilst its hexagonal design provides flat surface which allows shuttering and joint fillers to fit firmly.

Uses:

It is typically used in the following types of water retaining and water excluding structures:

- Reservoirs, Water towers and Sewage tanks
- Dams, canals, culverts and spillways
- Pools and ponds
- Basement and underground car parks
- Retaining walls, lift walls and abutments
- Roof decks and podium decks
- Tunnels and subways

Advantages:

- Wide range of profiles and fabricated intersection to suite every need
- Reinforced eyeleted edge flanges for positive fixing
- Simple on-site jointing
- Excellent resistance to soil chemicals, chlorides, sulphates, dilute acids and alkalis.



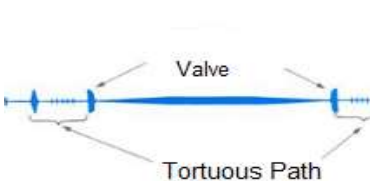
Nippon PVC Waterstop CJ150C, CJ200C, CJ250C, Centrally Place For Construction Joint



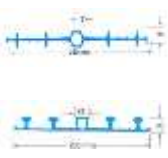
Nippon PVC Waterstop EJ150C, EJ200C, EJ250C, Centrally Place For Expansion Joint



Nippon PVC Waterstop CJ200E, CJ250E, Externally Place For Construction Joint (Left) Nippon PVC Waterstop EJ200E, EJ250E, Externally Place for Expansion Joint (right)



Product Grade	Profile	Packsize	Width	Valve	Placing	Usage
Nippon PVC Waterstop CJ150C		20m/roll	150mm	20mm	Centrally	Construction
Nippon PVC Waterstop CJ200C		15m/roll	200mm	20mm	Centrally	Construction
Nippon PVC Waterstop CJ250C		12m/roll	250mm	24mm	Centrally	Construction
Nippon PVC Waterstop CJ200E		15m/roll	200mm	20mm	Externally	Construction
Nippon PVC Waterstop CJ250E		12m/roll	250mm	22mm	Externally	Construction

Product Grade	Profile	Packsize	Width	Valve	Placing	Usage
Nippon PVC Waterstop EJ150C		15m/roll	150mm	20mm	Centrally	Expansion
Nippon PVC Waterstop EJ200C		15m/roll	200mm	20mm	Centrally	Expansion
Nippon PVC Waterstop EJ250C		12m/roll	250mm	24mm	Centrally	Expansion
Nippon PVC Waterstop EJ200E		12m/roll	200mm	20mm	Externally	Expansion
Nippon PVC Waterstop EJ250E		12m/roll	250mm	22mm	Externally	Expansion

Typical Technical Data

Properties	Nippon PVC Waterstop	Test Standards
Form	Extruded thermoplastic section	-
Color	Blue	-
Length, m	12m, 15m	-
Width, m	150mm, 200mm, 250mm	-
Hydrostatic Head	Up to 100m (10bar)	-
Tensile Strength, N/mm ²	≥14	
Elongation at Break, %	≥300	
Shore A Hardness	80-90	
Shelf Life	12 months	-

Application Method
Substrate Preparation
Centrally Placing

Nippon PVC Waterstop, centrally placed series are positioned within the thickness of the concrete components and as result are supported by concrete on both sides. They are therefore able to withstand water pressure from either side. They are suitable for use in water retaining structures. They will prevent loss of water from within the tank and will also prevent ingress of ground water when the tank is drained down.

Nippon PVC Waterstop must be installed so that they are securely held in their correct position while the concrete is being placed. Concrete must be fully compacted around the waterstops to ensure that no voids or porous areas remain. Where reinforcement is present, an adequate clearance must be left to permit proper compaction. The eyelets used for securing the waterstop are located outside the edge bulbs so as not to create water path around the profile.

Externally Placing

Nippon PVC Waterstop, externally place series are designed for use in basement, foundation and floor slab construction in vertical and horizontal joints in both water retaining and water excluding structures. When it is used in walls, externally placed waterstop will only resist water pressure from the face to which they are fixed. When used below floor slabs and it is supported by the blinding concrete or when placed in vertical situations against permanent concrete shuttering, externally placed waterstop will resist water pressure from either face.

When used on ground slabs where the waterstop is supported on blinding, the externally placing waterstops usually required no fixing. Lay the waterstop centrally over the line of the joint to be formed. Fixing to vertical shuttering is done by nailing through the outer nailing flanges leaving the head of the nail proud so that it is held in the cured concrete, preventing it from displacement when shuttering is struck.

Fixing Waterstop At Kicker

The waterstop for used at kicker is equipped with brass eyelets in the central rib. Twist short lengths of tying wire through there eyelets so that the kicker is cast they act as anchors, holding the center of the waterstop tight against the face of the concrete. This prevents the build up of debris between the waterstop and the kicker before the wall is casted.

Site Jointing Instructions

Site jointing is carried out using Heat Welding Equipment.



The ends to be joined are cut square and held in alignment in a special jig. The ends are then pressed either side of a special heated bladed, 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.

Recommended Waterproofing System**Concrete Substrate**

Waterproofing : **Nippon PVC Waterstop at desired profile**

Environmental Conditions During Application

1. Ensure well ventilated space for site jointing PVC waterstop.
2. Hot weld site jointing of PVC waterstop will result in the liberation of hydrogen chloride mist and vapour. The operation exposure limit of 5ppm can be exceeded in still air confined spaced, therefore suitable respirator PPE or forced ventilation must be provided.

Storage and Transportation

This product should be stored in original packaging in a shaded or cool and adequate ventilation warehouse. The storage temperature should be 15-35°C. This product should be away exposure from rain, UV, sunlight, source of flame and heat.

Cleaning

Clean up equipment or tools with **Nippon Thinner** immediately after use.

Safety Precautions

- Keep material tightly closed in original packaging
- Away from any sharp or protruding edges to avoid puncturing or damaging the material
- Always use protective hand gloves when handling or applying **Nippon PVC Waterstop**
- Extreme care should be taken when working near combustible materials
- Dispose off any waste in accordance with the appropriate Environment Quality Regulations

Note

The above information is given to the best of our knowledge based on laboratory tests and practical experience. However, since we cannot anticipate or control the many conditions under which our products may be used, we can only guarantee the quality of the product itself. We reserve the right to alter the given without prior notice