

XYLASTIC® SWELLABLE WATERSTOP – 1.0

PRODUCT DESCRIPTION

- **XYLASTIC® SWELLABLE WATERSTOP – 1.0** is a hydrophilic natural sodium bentonite and synthetic rubber compound which expands in a controlled fashion when exposed to moisture, forming a gasket and compression seal in concrete construction joints.
- **XYLASTIC® SWELLABLE WATERSTOP – 1.0** is ideal to be used in horizontal and vertical construction joints for cast in-situ concrete structures.
- **XYLASTIC® SWELLABLE WATERSTOP – 1.0** is manufactured from utilizing a specialized mixing process which encapsulates hydrophilic materials into a rubber base, creating a controlled, moisture-activated seal.
- The product has the structural integrity of a rubber-based sealant, the long term durability features of a bentonite-sealant, as well as the ability to expand to create a **SELF-HEALING WATERSTOP JOINT MATERIAL**.
- **XYLASTIC® SWELLABLE WATERSTOP – 1.0** is a permanently active system, which swell up to approximately 300%. The first expansion is delayed to prevent the strip from reacting too soon with possible rainwater, before or after installation. The swelling properties are created by the particle structure of the clay in contact with water and in confined condition.

STANDARD SIZE / PACKAGING

- | | | |
|----------------------------|---|--|
| • Dimensions | - | 20mm x 10mm x 5m roll (6 rolls per carton) |
| • Adhesive | - | 1 litre tin or 3.6 litre tin |
| • Primer/Adhesive Coverage | - | 20m-25m per litre (approximately) |

PRODUCT APPLICATIONS

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|------------------------------------|---|
| • Construction Joints (non-moving) | • Box culverts |
| • Underground structures | • New to old concrete (non-moving joint) |
| • Basements | • Precast concrete joints (seek consultation) |
| • Tunnels | • Swimming pools and water tanks |
| • Retaining walls | • Suspended slabs |
| • Water retaining structures | • Water excluding structures |

PRODUCT ADVANTAGES

- Excellent for application onto rough or smooth concrete surfaces.
- For use in horizontal and vertical construction joints.
- Allows concrete to gain strength before expansion takes place (expansion delay system).
- Ability to expand over 300% or original size.
- Excellent adhesion to the concrete surface with the use of **SOLVENT-BASED ADHESIVE**.
- Can be bedded into the wet concrete of the 1st pour prior to the concrete set taking place.
- No compaction or displacement problems during casting due to the size and shape of the waterstop.
- Unaffected by repeated wet and dry cycles.
- Has the ability to bond to the 2nd pour of concrete to form a gasket seal inside the joint.
- Can withstand a hydrostatic water head pressure of 6 bar (60 metres) in potable and salt water conditions.
- No on-site welding required as with conventional PVC waterstops.
- Very easy to handle and to install.
- No split form-working required.
- Non toxic and requires no special handling and can be used in potable water applications.
- Very wide application and serviceability temperature ranges.
- Can be exposed to wet environments prior to the 2nd pour taking place due to the products expansion delay system which allows minimal expansion within the first 3 days of full submersion in water.



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INSTALLATION PROCEDURES

1. To form 10mm wide x 20mm deep groove line along construction joint by Main Contractor for the installation of **XYLASTIC® SWELLABLE WATERSTOP – 1.0**.
2. **XYLASTIC® SWELLABLE WATERSTOP – 1.0** is to be adhered to the 1st pour of concrete with **SOLVENT-BASED ADHESIVE**. A clean/dry surface, free from dust, debris, etc. is required.
3. Use neat firm butt joints to join **XYLASTIC® SWELLABLE WATERSTOP – 1.0** together and then knead the ends together to form a continuous uninterrupted gasket. This type of join is used for continuous placement of **XYLASTIC® SWELLABLE WATERSTOP – 1.0** and for any intersection joints.
4. **XYLASTIC® SWELLABLE WATERSTOP – 1.0** requires a minimum of 50mm cover of concrete from any outside edge.
5. Brush off any dust or debris from the surface where the **XYLASTIC® SWELLABLE WATERSTOP – 1.0** is to be applied. Brush a coat of **SOLVENT-BASED ADHESIVE** 30mm wide onto the concrete surface. Wait for concrete surface to be touch dry before applying the **XYLASTIC® SWELLABLE WATERSTOP – 1.0**.
6. With the use of your thumb or the heel of your hand, firmly press a continuous bead of **XYLASTIC® SWELLABLE WATERSTOP – 1.0** into position, making sure you get full contact with the **SOLVENT-BASED ADHESIVE** on the concrete surface. Do not stretch the **XYLASTIC® SWELLABLE WATERSTOP** when applying it into position.
7. Check to see that the waterstop has totally adhered to the concrete surface. If the surface is rough or irregular, you may need to use a firmer hand pressure to make sure that the **XYLASTIC® SWELLABLE WATERSTOP – 1.0** has full contact with the surface. There must be no visible gaps under the **XYLASTIC® SWELLABLE WATERSTOP -1.0** after installation.
8. The protective paper layer cover on the **XYLASTIC® SWELLABLE WATERSTOP -1.0** can be removed anytime prior to the second pour of concrete taking place.
9. Placement of the second pour of concrete can be applied once the **SOLVENT-BASED ADHESIVE** has dried. Upon pouring, make sure that the concrete is fully compacted and vibrated around the **XYLASTIC® SWELLABLE WATERSTOP – 1.0**.
10. If **XYLASTIC® SWELLABLE WATERSTOP -1.0** has been exposed to water/moisture prior to the second pour taking place, check for pre-expansion. If the product has pre-expanded, then remove that section and replace it with a new length of **XYLASTIC® SWELLABLE WATERSTOP – 1.0**.
11. For vertical construction joints, and overhead applications, it may be necessary to also secure the **XYLASTIC® SWELLABLE WATERSTOP -1.0** with nails, placed approximately every 250mm apart. This is usually only required as extra security if you need to pour your concrete prior to the **SOLVENT-BASED ADHESIVE** drying completely.

TECHNICAL & PHYSICAL PROPERTIES

Descriptions	Value
Size	20mm x 10mm
Density	Approx. 1.45g/cm ³
Swelling capacity in contact with water	300%
Installation Temperature	-15°C ~ 60° C
Working temperature	-35°C ~ 100°C
Hydrostatic Head Pressure	6 bar (60m)

IMPORTANT NOTES

- Due to expansive forces of the product, **XYLASTIC® SWELLABLE WATERSTOP – 1.0** should be both detailed and installed with a minimum concrete cover of 50mm to any outside edge.
- Expansion rate can vary in salt and contaminated water.
- Increase cover when using light weight, low strength concrete.
- Not for use where excessive shrinkage of the concrete may occur at the joint faces or in expansion/movement joints.

The information and the recommendations relating to the application and end use of this product are given in good faith and are based on the information provided by the manufacturer of the product and/or the Company's current knowledge and experience in connection with the product when properly stored, handled and applied under normal conditions and no liability of final function at the job site is assumed. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability of or fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written and/or oral recommendations, or from any other advice offered by the Company. No responsibility or liability by the Company will be accepted for misuse, misreading or derivation from the recommended guidelines in respect of this product and the user shall determine the suitability of the product for his intended use and assume all risks and liability in connection therewith. The information contained in this brochure may change at any time without notice.

