

Waterproofing Systems / Waterproofing Tapes and Subsidiary Products**IMPERMO® TPE**

Thermoplastic Elastomer Based Water Swellable Tape

DESCRIPTION

Thermoplastic elastomer (TPE) water swellable tape for joints with hydrophilic particles, offering high swelling capacity and long cyclic durability. Makes concrete joints waterproof by swelling up to **400%** upon contact with water.

APPLICATION AREAS

- Indoor and outdoor,
- Swimming pools, water tanks and treatment facilities,
- Joints of foundation and shear wall,
- Manholes,
- Pipe inlet-outlets,
- Construction joints in cable canals,
- Tunnel segments,
- Joints of fresh and old concrete,
- Construction joints.

TECHNICAL PROPERTIES

Appearance	Red colored tape roll
Density	1.25 g/cm ³
Hardness (Shore A)	~ 40
Elongation at Break	≥ 500% when dry (DIN 73521)
Volume Change	≥ 400% (Swelling ratio in water containing 3% sea salt is 100%)
Tensile Strength	1.1 – 2.1 MPa
Application Temperature	Between -20°C and +50°C

ADVANTAGES

- Easy to apply, minimizes user errors that may appear on other water swellable tapes.
- Fills cracks and pores that may appear on cold joints by swelling once it gets in contact with water. Makes concrete joints waterproof.
- Can be conveniently used in vertical and horizontal applications.
- Once IMPERMO TPE Thermoplastic Elastomer Based Water Swellable Tape gets in contact with water; it swells in normal speed and does not damage the fresh concrete. Does not break apart, elastic.
- Does not require welding at the joints.
- Highly resistant to high salt concentrations and various chemicals.
- Offers superior cyclic swelling capacity.

CONSUMPTION

Running meter

PACKAGING5 mm x 20 mm, in rolls of 20 m
10 mm x 20 mm, in rolls of 10 m

APPLICATION

PREPARATION OF THE SURFACE

- The surface must be clear of materials that prevent bonding, such as dust, oil, tar, paint, silicone, curing materials, detergents and mold oils.
- The surface may be dry or slightly damp. It is recommended not to apply on wet, snowy surfaces in rainy weather.
- Very rough surfaces may cause water leakage after application. It is recommended to smooth the surface where the water swelling tape will be placed with a trowel or a piece of wood before the concrete hardens.

APPLICATION

- Cut sufficient amount of product with scissors or utility knife.
- Fix IMPERMO TPE Thermoplastic Elastomer Based Water Swellable Tape to the center of the section to be applied by mechanical or adhesive methods. Press to the surface for at least 15 seconds.
- If necessary, the tape can be adhered to the surface with **REPOX 310 Epoxy Repair, Adhesive and Assembly Mortar**.
- Joints should be side by side or end to end, not overlapped.
- Remove the silicone-coated paper.
- Make sure that the tape touches each point on reinforced concrete surfaces that are not properly shaped or with aggregates on the surface.
- Concrete can be poured on IMPERMO TPE Thermoplastic Elastomer Based Water Swellable Tape in a way that will not damage it.
- In applications made in pipe inlet – outlet details, it is not recommended to cover IMPERMO TPE Thermoplastic Elastomer Based Water Swellable Tape with a cement based product, because the tape will crack the coating as it will swell with water, prefer epoxy based repair mortar.

CAUTION

- Do not remove the product from its packaging until it is to be used.
- After application, avoid in contact with water until it is covered with concrete.
- Do not apply under heavy rain.
- Avoid exposition to direct sunlight and heat.
- The hardness and salt content of the water affects the swelling values of the tape.
- Store in a cool and dry environment and in its original moisture-proof packaging.
- Not suitable for use on joints exposed to movement.

SHELF LIFE

Expires in 24 months. Store unopened packages in a dry environment.

HEALTH AND SAFETY

As with all chemical products, avoid contact with food products, skin, eyes and mouth during use and storage. During the application, use work clothes, protective gloves and glasses in accordance with the occupational and worker health rules. Consult a doctor if accidentally swallowed. In case of contact with skin, rinse with water. Store out of the reach of children.

The application instructions and technical values given for the products have been obtained in accordance with our tests and experiences in accordance with international standards at 23±2°C temperature and 50±5% relative humidity conditions. These values may vary depending on ambient conditions. High temperatures shorten the times, low temperatures lengthen them. Before starting the application, the user should test whether the product is suitable for the application and purpose. FIXA Construction Chemicals Ltd. is not responsible. This Technical Data Sheet remains valid until the next revision is published. FIXA reserves the right to change the values specified in this Technical Data Sheet, provided that the new version is published. It is the user's responsibility to check that the document is up-to-date. Please contact our sales department for more information.