

▶ Description



TamSeal R is a hydrophilic rubber waterstop that has been developed for water stopping function in construction and civil engineering application, which cause inevitable leaking all the time. TamSeal R is capable of sealing heads of water up to 50 metres and is widely used to seal horizontal and vertical construction joints for poured in-situ concrete. It is treated with a delay coating thus preventing it from premature expansion.

As with any hydrophilic waterstop, TamSeal R will return to its original size if the concrete and substrate is completely dry. If water or moisture is introduced again to the joints, TamSeal R will then re-expand to seal the potential leaking joints. It has been tested in numerous wet and dry cycle conditions.

▶ Key Benefits

- High swelling > 200%
- Easy to apply
- Non-toxic
- Swells even in saline conditions

▶ Typical Applications

- Poured in-situ construction joints
- Tunnel segments
- Pre-cast concrete
- Shotcrete interfaces
- Pipe penetrations

▶ Technical Data

| TamSeal R | |
|--|-----------------------|
| Appearance | Black |
| Density | 1.45 |
| Volumetric expansion in Fresh Water (ASTM D471: 98e1) | > 200% |
| Durometer hardness (ASTM 2240) | 50 |
| Tensile strength (DIN 53405) | 1.10N/mm ² |
| Elongation (ASTM D412) | > 500% |



Left – Expansion in fresh water compared to original product.

Right – Expansion in salt water compared to original product.

TamSeal TamSeal R swells isotropically upon contact with water. The expanded product covers surface irregularities and renders them waterproof.

TamSeal R swelling strips exhibit all the properties of a high value elastomer, including the ability to recover their shape upon drying. The mechanical properties are excellent in both dry and swollen conditions.

The swelling properties of TamSeal R are not negatively influenced by water soluble electrolytes (Me^+ and Me^{++}) or the contents of cement. The profiles can be used in brine solutions or in contact with sea water.

TamSeal R strips do not deteriorate with age. The swelling property and the elastomeric structure is unaffected by age.

The product is chemically inert. It contains no components which can damage concrete, reinforcement steel or the usual waterproofing materials such as PVC, bitumen, SBR or mixtures thereof. The product is environmentally Neutral, contains no harmful or poisonous materials and can be recycled. TamSeal R has no effect on groundwater.

TamSeal R has high chemical resistance, similar to that of polyurethane rubbers. It is not influenced by the typical concrete raw materials, petrol, mineral oils and many acids and alkalis. Light or ozone exposure does not cause it to become brittle.

The swelling property of TamSeal R is totally reversible i.e. as it dries; the volume goes back to the original. On further contact with water, it will re-activate, the maximum swelling volume is restricted to 250% isotropically.

▶ Application Guidelines

TamSeal R profiles are placed with appropriate adhesives for typical applications in concrete joints. It is advisable to use the water-swellable paste TamSeal SM (swellable mastic). Joints in the strips should be butt-joined and carefully stuck down with TamSeal SM (swelling mastic).

▶ Packaging

TamSeal R is supplied in: -

20 x 5mm – 100 metres / box (2 rolls of 50 metres)
20 x 10mm – 50 metres / box (2 rolls of 25 metres)

▶ Storage

TamSeal R should be stored at room temperature (min 10°C and max 38°C), kept dry and off the ground. If these conditions are maintained and the product packaging is unopened, then a shelf life of 1 year can be expected.

▶ Health & Safety

TamSeal R should only be used as directed. We always recommend that the Health & Safety data sheet is carefully read prior to application of the material. Our recommendations for protective equipment should be strictly adhered to for your personal protection. The Health & Safety data sheet is available upon request from your local TAM International representative.