



STERLING[®]Hydrofin[®] SwellFix 400

TECHNOTRADE Single component, Caulk-applied, hydro-swelling Joint Seal gasket in paste form for sealing construction joints and pipe penetrations.

The Specialist Construction Chemical Company

Description:

Sterling[®] HydroFin[®] SwellFix 400 is a single component, hydrophilic waterstop design and formulated for sealing construction joints, pipe penetrations and other concrete joints of smooth and uneven surfaces. Sterling[®] HydroFin[®] SwellFix 400 cures and swells in the presence of moisture or water thereby creating a compression seal.

Sterling[®] HydroFin[®] SwellFix 400 will cure in approximately 24 to 36 hours depending on ambient climate, Curing time decreases with higher temperatures and greater relative humidity. Performance is not affected by the curing time. Sterling[®] HydroFin[®] SwellFix 400 is supplied in sausages or in cartridges.

Application Includes:

Sterling[®] HydroFin[®] SwellFix 400 is recommended for use in the following areas of application-

- Waterstop
- Tunnel segment joints
- Pipe penetrations
- Poured wall joints
- Cold joints
- Sheet pile joints
- Manhole, box culverts, cable ducts joints
- Sealing construction joints of cast in-place or precast concrete
- Sealing around bolt spacers and void formers.
- Surrounding steel reinforcement bars on pile heads.

Features & Benefits:

- Single component and Easy application with standard caulking gun. Sterling[®] HydroFin[®] SwellFix 400 can be applied to concrete, PVC, HDPE, steel, etc. Strong adhesion to concrete and steel even in humid conditions.
- High elongation and remains elastic after curing.
- Solvent free, Flexible system, which adapts to the irregular surface of the substrate.
- High expansion, Non-sagging.
- The excellent filling and adhesion properties of the product provide a first line filling of cracks and voids, even on lightly humid, smooth or rough surfaces.

Packaging:

310ml cartridge (6 x 310ml cartridges per carton) & 600ml cartridge (12 x 600ml sausages per carton)

Shelf Life:

The shelf life is 12 months from the date of production under suitable storage conditions. Opened packages should be stored under suitable storage conditions and used within 1 week.

Application:

Sterling[®] HydroFin[®] SwellFix 400 can be applied at temperatures of 4°C or above. During cold or damp conditions, the seldge and tape adhesive can be gently warmed using a hot air gun or similar to remove moisture or condensation and improve initial adhesion.

Application Procedure:

Good preparation is essential. Surfaces must be sound, stable, dry, clean and free of dust, loose, flaking, friable material and substances that may diminish adhesion. The concrete substrates on which the product is going to be applied should be M25 grade and the concrete should be 28 days old at least. After the preparation of the surface, the tensile strength of the substrate should exceed 1.5 N/mm² (tested with an approved pull-off tester at a load rate of 100 N/s). The residual moisture content of the substrate should not exceed 4%

- Sterling[®] HydroFin[®] SwellFix 400 is preferably applied onto a dust-free concrete surface. The surface can be rough or smooth, moist or dry. Apply HydroFin[®] SwellFix 400 in an uninterrupted band 10 mm bead minimum to the middle of the joint or precast element. The concrete cover must be at least 3" or 7 cm on all sides in order to avoid cracks from the pressure of swelling material.
- In underwater or very wet conditions the concrete pour should begin within 2 hours of application to prevent material from premature swelling which may result in reduced effectiveness of the product.
- Break the moisture-proofing aluminium foil on the top of the cartridge and remove the seamer from the bottom. Screw on the nozzle and cut diagonally at the appropriate position. Place the cartridge into caulking gun.
- Put the sausage in the empty tube of the caulking gun and cut 1cm off the top of the sausage. Close the tube and install the nozzle. Cut the nozzles diagonally at the appropriate position.
- Sterling[®] HydroFin[®] SwellFix 400 is applied in an uninterrupted band (minimum 10mm wide and high), placed with a caulking gun in the middle of the joint or prefab element (minimum concrete cover is 7cm).
- In case of fresh concrete, Sterling[®] HydroFin[®] SwellFix 400 should be covered by at least 7cm of concrete on both sides, in order to avoid cracks from the expansion pressure of swelling Sterling[®] HydroFin[®] SwellFix 400

Limitations:

Sterling® HydroFin® SwellFix 400 must be completely confined to perform properly. When used in precast or joints, minimum concrete cover is 3" or 7cm on all sides. Unconfined material may expand beyond design levels and may result in leaks. At temperatures below 5°C, the product cure time may exceed several days.

Cleaning:

Used tools and equipment must be cleaned carefully with an appropriate solvent like **TechnoPur® Eco Cleaner**. Once cured Sterling® HydroFin® SwellFix 400 can only be removed by mechanically.

Health & Safety Instructions:

Protect your health while working with this material, always use safety goggles, gloves and safety clothing. When handling hazardous materials or pressurized materials, or during any application that may result in spills, splashes or airborne particles, a full face shield is strongly recommended. Protect yourself and others on the jobsite. Consider property in proximity of the application area to prevent loss or damage.

Protect your jobsite from unauthorized persons. Store all materials and equipment safely and out of reach of children and animals. Observe container labels, SDS, applicable laws and regulations and all instructions before using the product and equipment. In case one of the components comes in contact with the skin, wash thoroughly with soap and water. Provide adequate ventilation in volume and pattern in working area.

***Further protection:** emergency showers and eyewash stations. Get immediate medical attention as needed.

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Typical Properties at 25°C

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| Solids | 100% |
| Density g/ml | 1.4 |
| Flash Point, °C / °F | 130°C/266°F ASTM D93 |
| Viscosity | gel / paste |
| Swelling Capacity in contact with Water | Swells to approx. 200% of its original dry volume |
| Corrosiveness | Non-Corrosive |
| Hand Dry (at 20°C and 60% rel. humidity) | 10h |
| Tensile Strength, psi | 300-320 ASTM D412 |

Disclaimer: The product information & application details given by the company & its agents has been provided in good faith & meant to serve only as a general guideline during usage. Users are advised to carry out tests & take trials to ensure on the suitability of products meeting their requirement prior to full scale usage of our products. Since the correct identification of the problems, quality of other materials used and the on-site workmanship are factors beyond our control, there are no expressed or implied guarantee / warranty as to the results obtained. The company does not assume any liability or consequential damage for unsatisfactory results, arising from the use of our products.

Additional Information: Techno Builders Solutions® By Sterling Technotrade India Pvt.Ltd -The Specialist Construction Chemicals Company® range of associated products includes high performance concrete Admixtures, Adhesives, Protective Coatings, Concrete Repairs, Industrial Flooring, Grouts & Anchors, Joint Sealants, Surface Treatments, curing compounds, repair mortars, release agents, Grinding Aids & Waterproofing.

*Separate datasheet are available on these products.

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