

PRODUCT CODE: 5766, 5767, 5768

SMARTCARE TPE TAPES 150MM, 200MM, 300MM

PRODUCT DESCRIPTION

SmartCare Thermoplastic Elastomer (TPE) based joint tape designed for water tightness of expansion joints. It is highly elastic, root proof and chemically resistant. The system allows variable and high levels of movement in more than one direction, whilst maintaining a high quality watertight seal. It is suitable for use in hot and tropical climatic conditions.

AREAS OF USAGE

- Expansion joints in terrace, basement, tunnels and pre cast panels

FEATURES & BENEFITS

- UV resistant
- Permanently elastic even at low temperatures
- Resistant to puncturing and tearing
- Easy application of adhesive and tape
- Easy to cut, weld (hot air) and join
- Resistant to constant exposure to water
- Resistant to roots

PRODUCT DETAILS

CHEMICAL PARAMETERS

Material: Thermoplastic Elastomer Tape

Chemical Resistance to: Water and bitumen based waterproofing products, water, sea water, waste water, UV radiation, hydrolysis, micro organisms

pH Resistance: pH = 2 to 10 (below 30°C), pH = 5 to 10 (below 40°C), pH = 6 to 8 (below 60 °C)

Limited resistance to: Acids and alkalis, organic solvents (Ester, Ketone and similar solvents)

PHYSICAL PARAMETERS

- Colour:** Light Grey
- Packaging:** Length-25m, Thickness-1.2mm, Width-150mm, 200mm, 300mm || Perforated at the sleeve edges
- Shelf life:** 3 years from date of manufacturing

TECHNICAL DETAILS

Parameters	Test Method/ Standard	Typical Values
Tensile strength (MPa)	ASTM D 412	> 5
Elongation at failure (%)	ASTM D 412	> 400 %
Tear strength	ASTM D 624	> 25 KN/m
Shore A Hardness	ASTM D 2240	82
Service temperature		from -40°C to +80°C
Adhesion by Epoxy- Tough Adhesive@ 24 Hrs	ASTM D 903	44 N, C/F
Adhesion by Epoxy- Tough Adhesive@ 7 days	ASTM D 903	52 N, C/F
Low temperature bending	ASTM C 1305	no crack at-40°C
Resistance to aging	ASTM D 2565	meets specified requirements
Resistance to UV rays (h)	ASTM G 154	> 7500
Inflammability according to VFK Switzerland		4.2
Thermal welding		+270

APPLICATION METHOD:

Surface Preparation:

Surfaces must be clean, sound and dry. On damp surfaces the pull off strength should be tested as adhesion gets impacted greatly. Dust, oil, grease, old coatings, laitance, efflorescence, rust, curing compounds, wax, formwork release oil and similar contaminants must be removed prior to application. Over Concrete surfaces if necessary the substrate must be sanded to guarantee optimal adhesion of Asian Paints Loctite Tough X Epoxy Adhesive.

Verify the substrate has been properly cured. Concrete should obtain 80% of design strength, typically achieved within 3-14 days. Irregularities on the substrate must be repaired.

Installation:

1. Asian Paints Loctite Tough X Epoxy Adhesive is applied to the prepared substrate on both sides of the joint so both sides of the tape are embedded into the adhesive on a width of at least 1 ½" (38mm). The layer thickness of the Adhesive should be approx. 0.08" (2.0mm).
2. The SmartCare TPE Tape is then immediately embedded into the fresh adhesive and pressed onto the adhesive using a hand roller or a similar suitable tool. Ensure the tape has good contact to the adhesive everywhere.
3. Then a second layer of Adhesive is applied on top of the Tape so that the edges of the tape are overcoated on a width of min. 2" (50mm). Also, apply Adhesive so that it covers the substrate next to the tape on a width of at least ¾" (19.0mm).

Welding (if required): These tapes may be welded with a hot air welding machine set to 270°C. Maximum temperature allowed for welding is 360°C. Welding of the tape should be carried out prior to the application of the tape. Before welding the tape, roughen the seam area with a wire brush or Scotch Brite scouring pad. To weld the tape, place it on a level substrate and press the overlapping ends of the tape together firmly after applying hot air using a wooden or hardened rubber roller. This way greater length can easily be made on site.

SAFETY FEATURES & PRECAUTIONS:

- Do not apply below 5°C or if temperatures below 5°C are expected within the next 24 hours.
- Do not apply the system on wet or frozen surfaces.
- Do not apply the system on dusting or weak surfaces. If in doubt, test the pull off strength.
- Cold temperatures prolong, and hot temperatures shorten pot life and curing time of the epoxy adhesive.
- High levels of humidity may prevent proper curing of the epoxy adhesive.
- In areas which are stressed by traffic, the system should be covered with protective metal plates.
- Avoid contact to eyes and mouth during storing and application. Consult a physician urgently if such a contact occurs. Food and drink must be kept outside the application areas. Must be stored away from children.

STORAGE PRECAUTIONS: Store in a cool and dry warehouse away from direct sunlight.