ELAST PRO

TPE EXPANSION JOINT TAPES, TPE CONSTRUCTION JOINT TAPES,
TPE MOVEMENT JOINT TAPES, TPE CRACK REPAIR TAPES
NITRILE RUBBER JOINT TAPES

EXPANSION JOINT

An expansion joint is an assembly designed to safely absorb the heat-induced expansion and contraction of various construction materials. They are commonly found between sections of slabs, bridges, and other structures. An expansion joint is a continuous vertical or horizontal joint left completely free of mortar and filled with elastomeric sealant to keep it watertight.

Throughout the year building faces and concrete slabs will expand and contract due to the warming and cooling of our planet through the seasons. The structures would crack under the stress of thermal expansion and contraction if expansion joint gaps were not built into the structures. Even today the expansion joint gaps are often neglected during the design process and simple caulking is used to fill these gaps to complete a project. This simple caulking cannot handle the thermal expansion due to the changing seasons ultimately leaving a leak point in the structure. This expansion joint becomes the main source of leakages in the structure which can ruin the interiors of the building if not sealed or treated confidently.

DESCRIPTION OF PRODUCT

Thermoplastic elastomer (TPE) based joint tape is designed for watertightness of expansion and construction joints. It is highly elastic, rootproof and chemically resistant. It is extremely durable has excellent resistance to weathering and is UV and chemically stable. 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.The bond to the substrate is made using 2-Component Epoxy adhesives namely resin and hardener mixed in 2:1 ratio which causes a thixotropic reaction between the tape and the substrate , forming an unbreakable bond.

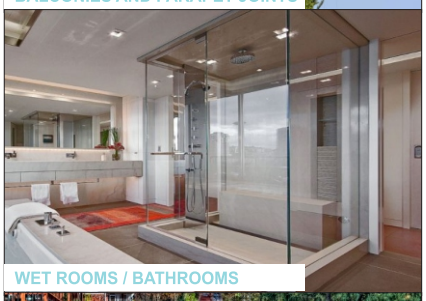
AREAS OF APPLICATION

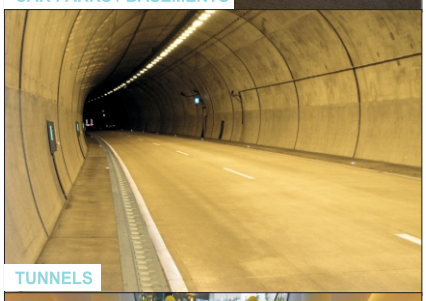

WATER TREATMENT PLANTS


BRIDGES AND FLYOVERS

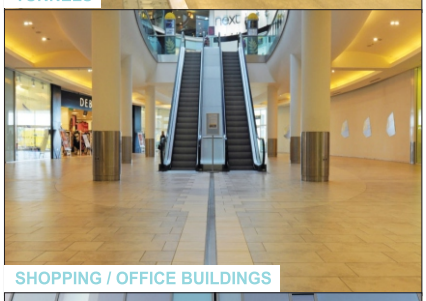

BALCONIES AND PARAPET JOINTS

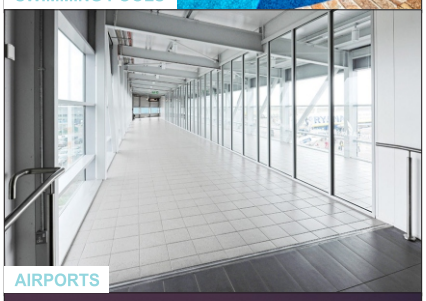

CAR PARKS / BASEMENTS


WET ROOMS / BATHROOMS

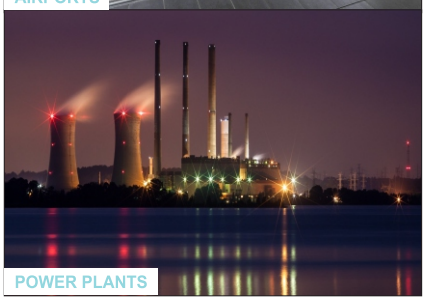

TUNNELS

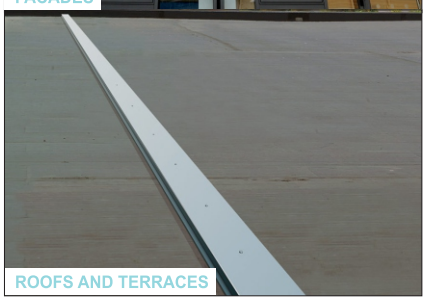

SWIMMING POOLS


SHOPPING / OFFICE BUILDINGS


AIRPORTS


FACADES


POWER PLANTS


ROOFS AND TERRACES

Depiction	Function
Cold Joint	Boundary between concreting steps, for example the wall / floor joint
Movement Joint	Reciprocal movement possibilities for separate construction members in different directions
Expansion Joint	Movement in the perpendicular to the joint flanks
Settlement Joint	Movement parallel to the joint flanks
Dummy Joint	Predetermined Breaking Point
Pressed Joint	Transfer of pressure, transverse displacement can be avoided with an interlocking geometry
Contraction Joint	Reduction of building element movement (i.e. contraction during curing or settlement of the building)

- Waterproofing horizontal and vertical dilatation joints. Waterproofing wide and irregular cracks. Connection joints of slabs and walls.
- Suitable substrates are concrete, mortar, wood, metal, steel, aluminum, epoxy mortar, natural and artificial stones and many other building materials.

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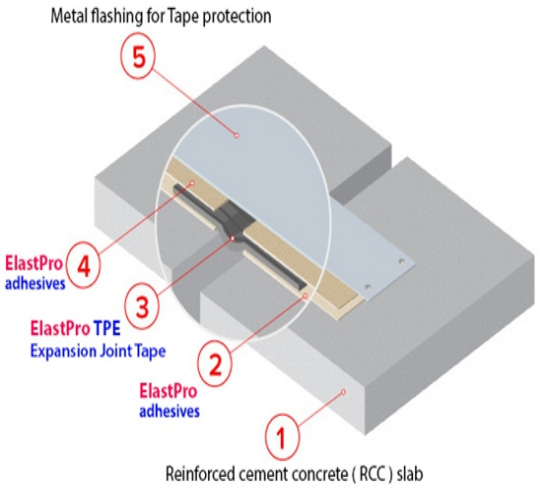
Treatment Of Expansion Joints

Expansion joints are installed to manage the coefficient of thermal expansion over large spans of concrete. The waterproofing material must not only cope with the movement of the building, but also be designed to resist aging that leads to the weakening of the bond on the concrete and causes failure of the system.

A flexible material is essential so that it does not crack with movement.We offer a highly flexible and durable tape for expansion joints with high elasticity to accommodate the thermal movement and at the same time waterproofing the leakage prone joint.



ADVANTAGES

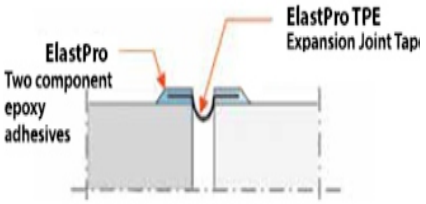
- UV resistant.
- Permanently elastic even at low temperatures.
- Good adhesion to concrete, mortar, steel and many other building materials.
- Resistant to puncturing and tearing, also easy to repair.
- Easy application of adhesive and tape.
- Easy to cut, weld (hot air) and join.
- Resistant to constant exposure to water.
- Resistant to roots.

Width	100,150,200,250,300,400,500,600 (mm)
Colour	Grey
Chemical resistance	Water and bitumen based waterproofing products, water, sea water, waste water, UV radiation, hydrolysis, micro organisms
pH resistance	pH = 2 to 10 (below 30ºC) pH = 5 to 10 (below 40ºC) pH = 6 to 8 (below 60ºC)
Limited resistance to	Acids and alkalis, organic solvents (Ester, Ketone and similar).

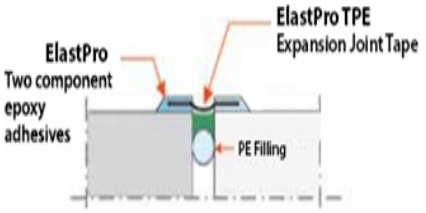
Property	Unit	Method	Value
Shore Hardness (15 sec.)	Shore A	ASTM D2240	80
Tensile Strength	N/mm^2	ASTM D882	> 7
Elongation at Break	%	ASTM D882	> 600
Peel Strength	N/mm^2	ASTM D3807	> 8
UV Resistance	Hours	ASTM G154	> 6000
Service Temperature	Celsius		-40ºC to +80ºC
Water Resistance	Bar		> 8

APPLICATION PROCEDURE

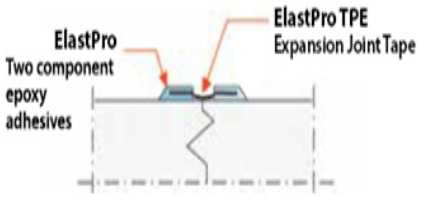
Surfaces must be clean, sound and dry. On damp surfaces the pull off strength should be tested. Dust, oil, grease, old coatings, laitance, efflorescence, rust, curing compounds, wax, formwork release oil and similar contaminants must be removed prior to application.



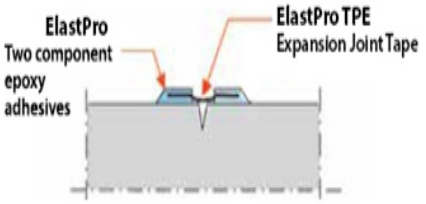
Over Concrete surfaces if necessary the substrate must be sanded to guarantee optimal adhesion of ElastPro Adhesives.



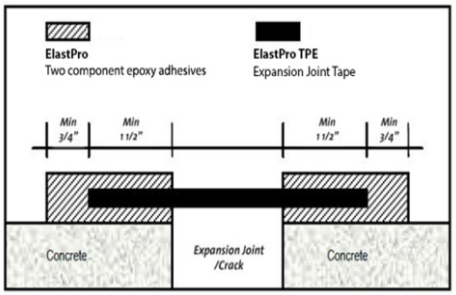
Verify the substrate has been properly cured. Concrete should obtain 80% of design strength, typically achieved within 3-14 days. Irregularities on the substrate must be repaired.



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.



1. ElastPro Adhessives 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 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).

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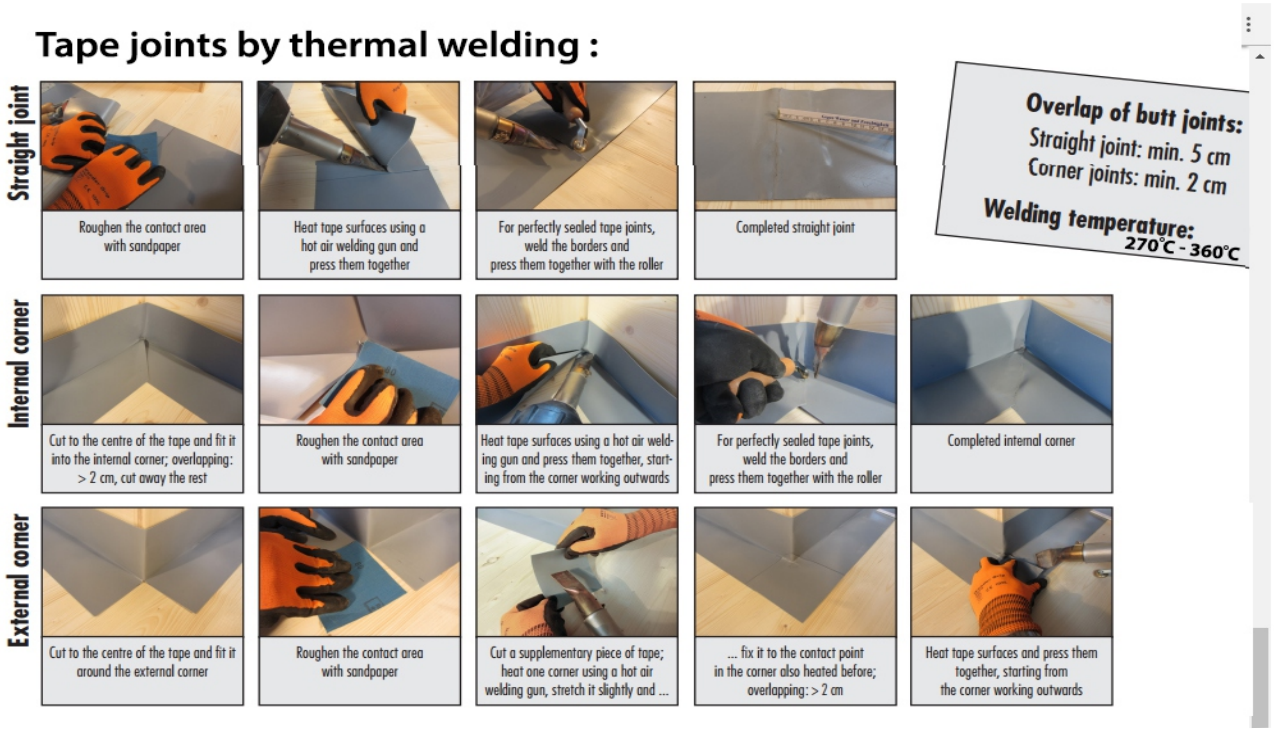

CLEANING OF TOOLS

Fresh epoxy adhesive can be removed with Cleaner. Cured material can only be removed mechanically.

STORAGE

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

NOTES

- 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 f rozen 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 propercuring of the epoxy adhesive.
- For application of the system as part of negative side waterproofing, please contact our Technical Service.
- In areas which are stressed by traffic, the system should be covered with protective metal plates.

SHELF LIFE

No shelf life limitation under appropriate storing conditions.

HEALTH AND SAFETY PRECAUTIONS

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.

For safety Data Sheet of 2 component Epoxy Adhesive please visit website : www.grasim.com

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ELASTPRO NITRILE RUBBER TAPES (with non woven polyester fleece backing)

ElastPro Nitrile rubber tapes are designed for high performance bond breaker band used for sealing and waterproofing of all types of construction joints in various civil works. It provides 100% watertightness at areas such as junctions, corners and other general areas subject to movement. ElastPro Nitrile rubber tape can accommodate movement in longitudinal, lateral and transverse directions enabling high elongation, rupture resistance and up to 100% elastic recovery.

Applications:

* Corners between adjacent walls
* Walls and floor
* Expansion joints on terraces and balconies
* Sealing pipes and drains in bathrooms
* Showers and kitchens
* Sealing expansion joints in precast panels.

Characteristics:

Vapour, water, alkali, acid, salts and adverse weather resistant, elastic and deformable at low temperatures.

Features & Benefits

* Worldwide approved bondbreaker system.
* Time saving simplified installation.
* Eliminates need for sealant bondbreakers and tapes.
* Long term protection at critical joint intersections and movement zones.
* Accommodates movement in longitudinal and lateral directions with up to 100% elastic recovery.
* Constructed of a unique high strength rubber compound that is rupture, chemical and water resistant.
* Can be used in areas subject to full immersion.
* Compatible with 2- Component Epoxy Resin Adhesives/cementitious mortar.

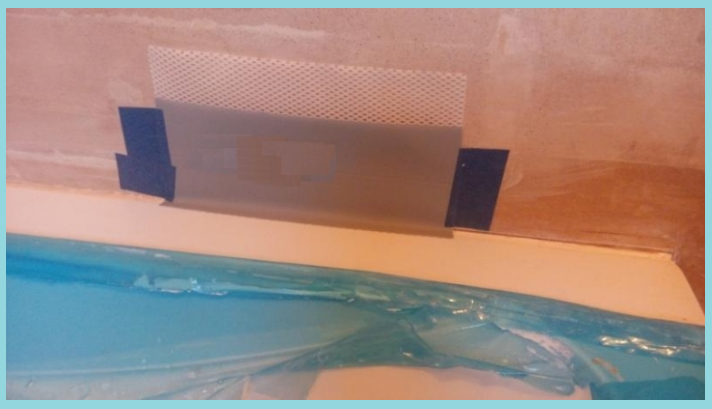
Application

* Suitable for commercial, industrial and residential applications.

Waterproofing Uses

For use as a bond breaker at the following critical areas:

* Corners between adjacent walls
* Walls and floor
* Expansion joints on terraces and balconies
* Sealing pipes and drains in bathrooms
* Showers and kitchens
* Sealing expansion joints in precast panels.



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Application Procedure for ELASTPRO NBR JOINT TAPES :

ELASTPRO NBR JOINT TAPES comes in 10 meters, 25meters and 50 meters roll length packings, carefully measure and cut ELASTPRO NBR JOINT TAPES for all application areas such as wall/floor and other functional areas. Apply first coat of easily bonded 2 components epoxy adhesive or cementitious mortar approximately 150mm extending up the walls and on to floors, then embed ELASTPRO NBR JOINT TAPES into the wet bed of adhesive/mortar, ensuring fabric edges are fully wet out and no air bubbles exist behind the fabric. Rear rubber section of ELASTPRO NBR JOINT TAPES is not bonded to substrates. At sections where Joint Band is to be joined, a minimum 50mm overlap is required. ElastPro NBR Tape prefabricated corners are available for both internal (90 degree) and external (270 degree) junctions, enabling Joint Band to overlap and avoid joint at critical areas. If Prefabricated corners are not used, ELASTPRO NBR JOINT TAPES is to have bottom leg cut and folded; ensuring fabric is completely bonded with the 2 components epoxy adhesives.

Safety Instructions for preparation and application:

During its application it is recommended to wear gloves and goggles and safety requirements of work place.

Packaging and Sizes :

ELASTPRO NBR JOINT TAPES OSF (one side fleece):

1.) 10 mts X 120 mm X 0.9 mm (Product code : OSF 120/10)
2.) 25 mts X 120 mm X 0.9 mm (Product code : OSF 120/25)
3.) 50 mts X 120 mm X 0.9 mm (Product code : OSF 120/50)
4.) 25 mts X 230 mm X 1.2 mm (Product code : OSF 230/25)

ELASTPRO NBR JOINT TAPES BSF (both side fleece):

1.) 10 mts X 120 mm X 0.9 mm (Product code : BSF 120/10)
2.) 25 mts X 120 mm X 0.9 mm (Product code : BSF 120/25)
3.) 50 mts X 120 mm X 0.9 mm (Product code : BSF 120/50)

Product Properties

Rubber:	NBR (acrylonitrile butadiene rubber)
Carrier Edging:	Polyester fleece with lateral flexibility
Total Width:	120mm, 230mm
Thickness:	0.9 - 1.2 mm
Rubber width:	70mm span, 20mm central stretch zone (120mm width) 180mm span, 60mm central stretch zone (230mm width))
Surface face:	Fleece lamination

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TECHNICAL DATASHEET

Product Name: ELASTPRO NBR JOINT TAPES (with non woven polyester fleece backing)

Description : The ElastPro NBR Joint Tapes are an innovative detailing system designed for waterproofing and sealing all types of joints, junctions and general areas subject to movement featuring the central "Flexible Zone" which can accommodate movement in longitudinal, lateral and transverse directions enabling high elongation, rupture resistance, and up to 100% elastic recovery.
The NBR Joint Tapes are easy to install and provides for considerable time saving efficiencies and durable properties over conventional bond breaking sealants and tapes.

Physical Properties

Shore A hardness: (ASTM D2240)	65
Tensile strength (ASTM D882)	>2.0 N/mm² lateral direction >9.0 N/mm² longitudinal direction
Elongation at Break (ASTM D882):	>300% lateral direction >60% longitudinal direction
Moisture vapor transmission	
resistance coefficient μ: Equivalent air thickness sd:	8.4 5.0
Water pressure resistance:	3 bar
Service temperature :	-20ºC to +90ºC
Fire class (DIN, EN):	B3, F

Chemical Resistance

Lactic acid:	5%
Acetic acid:	5%
Hydrochloric acid:	3%
Chloric acid :	3%
Sulphuric acid:	35%
Citric acid:	10%
Potassium hydroxide:	20%
Sodium hypochlorite:	(0.3g/L)
Sea water:	sea salt (20g/L)
Lime milk:	pH 12.5
Sodium hydroxide solution:	pH 14
Diesel oil, grease, oil, paraffin:	0 to 14pH

Notes

Products are to be installed to manufacturer guidelines using recommended adhesives.
No warranty is offered when these products are not installed to specification.
Details contained in this product data sheet are general.
For any situation or items not covered in this data sheet,
it is the responsibility of the applicator to check with Ankit Polymers Technical Services before commencing the application.

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ANKIT POLYMERS

PLOT NO.83, PACE CITY-1, Sector-37, Gurugram -122001. INDIA.
Telephone: +91-9873507113,+91-9810396709,+91-9810157576,+91-124-4032165,+91-124-4004780.
Email: ankitpolymers1997@gmail.com
Website: www.elastpro.com

Product Disclaimer

This Product Data Sheet (PDS) summarises our best knowledge of the product, including how to use and apply the product based on the information available at the time. You should read this PDS carefully and consider the information in the context of how the product will be used, including in conjunction with any other product and the type of surfaces to, and the manner in which, the product will be applied. Our responsibility for products sold is subject to our standard terms and conditions of sale. ANKIT POLYMERS does not accept any liability either directly or indirectly for any losses suffered in connection with the use or application of the product whether or not in accordance with any advice, specification, recommendation or information given by it.

ASTM INTERNATIONAL Standards Worldwide

ISO 9001:2015 CERTIFIED

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