

RAYSTON FLEX JOINT GEO

RAYSTON
products



High performance, elastic, joint sealing system

DESCRIPTION

Rayston Flex Joint Geo is a high-performance sealing system for expansion, construction and connection joints, as well as cracks and fissures. It consists of a highly elastic, flexible and waterproof thermoplastic elastomer (TPE) band with two thermally welded geotextile strips along its sides. Once bonded to the substrate, it accommodates substantial multidirectional movement, both indoors and outdoors. The system is installed using an epoxy adhesive or a high-bond cementitious mortar when applied to joints exposed to moisture.

APPLICATIONS

- Expansion joint waterproofing in walls, roofs and terraces, water tanks, water treatment plants, swimming pools, tunnels, basements, and galleries.
- Joints between rigid and flexible materials.
- Repair of big-sized joints submitted to big movements.
- Sealing of cracks and fissures in concrete structures.
- Repair of expansion joints made with mastics or water-stop-like joints.

PROPERTIES

- High elasticity.
- Completely waterproof.
- Suitable for applications in permanent immersion.
- Excellent adhesion to all types of support.
- Can be applied on dry and humid supports.
- Good chemical resistance to diluted acids, bases, and salts.
- Very high UV resistance
- Good resistance and elasticity even at low temperatures.
- Its polypropylene-geotextile assures compatibility with cementitious products, unlike alkali, which do attack polyester geotextiles.
- Easy to install.

TECHNICAL DATA

INFORMATION ABOUT THE PRODUCT

Description	Thermoplastic elastomer (TPE) with non-woven polypropylene geotextile.
Geotextile	On both sides to offer the perfect adhesion with different types of adhesives.
Colour	Dark grey
Roll-length	30 m
Width elastic tape	170 mm (110+50 mm)
Approx. thickness of the tape	1,5 mm
Material weight (approx.)	160 g/m
Resistance to temperature	-30°C / +90°C
Burst pressure	1.8 bar
Breaking load longitudinal (only flexible zone)	56 N / 15 mm (DIN 527-3)
Breaking load longitudinal	140 N / 15 mm (DIN 527-3)
Breaking load lateral	58 N / 15 mm (DIN 527-3)
Longitudinal elongation at break (only flexible zone)	279% (DIN 527-3)
Longitudinal elongation at break	33% (DIN 527-3)
Transversal elongation at break	486% (DIN 527-3)
Power absorption at 25%	0.8 N/mm (DIN 527-3)
Power absorption at 50%	1 N/mm (DIN 527-3)
Water pressure resistance	> 3 bars (DIN EN-1828)
UV resistance	> 2.480 hours (DIN EN ISO 4892-2)
Chemical resistance	(7 days immersion room temperature)
Agent	Result
Hydrochloric acid (3%)	favourable
Sulfuric acid (35%)	favourable

Citric acid (100g/l)	favourable
Lactic acid (5%)	favourable
Potassium hydroxide (20%)	favourable
Sodium hypochlorite (0,3 g/l)	favourable
Saltwater (20 g/l)	favourable

SUPPORT PREPARATION

The supports must be clean and free of loose particles, oils, and greases, etc. Metal elements must also be clean and rust-free. Demoulding agents, loose or fissured elements must be removed by brush, grinder, or sandblasting. Before the application of the system, superficial damages and imperfections must be repaired with repair mortar.

TAPE PREPARATION

Cut the tape into the needed length and shape: corners, overlaps, intersections, etc. and place them onto the surface before the application. Make sure the edges of the geotextile and the support are completely dry if you use the epoxy glue.

APPLICATION

Depending on the support, the work conditions, and the technical requirements you may choose between two different products for setting the tape:

Dry supports: If the support is completely dry, it's recommendable to use epoxy glue to assure best adhesion levels.

Mix the glue according to the instructions indicated on its technical data sheet. Using a trowel or spatula, apply enough epoxy glue onto the support on both sides of the joint (at least 10mm beyond the geotextile profile) at a thickness of 1,0-1,5 mm.

Immediately after the application of the epoxy glue, put the elastic tape Rayston Flex Joint Geo, with the geotextile sides down, onto the support and press onto it with a trowel or rigid roller so it soaks up the glue.

Apply another layer of glue on wet and again smooth the surface with a spatula or trowel in order to obtain a nice finish. It's recommended to profile the joint with adhesive tape to improve the finish.

It's also possible to set the tape with the waterproofing membrane Impermax. After applying Impermax the usual way, put Rayston Flex Joint Geo on the fresh resin. After curing, apply another layer Impermax on the joint.

Humid supports: In case of a humid support or where adhesion requirements are not the best, use a flexible waterproof mortar, which also gives higher performance at a lower cost.

Humidify the area until saturation. Once it has lost its gloss, mix the mortar and apply enough quantity with a brush, a spatula or trowel onto the support, about 10mm beyond the edge of the geotextile at a thickness of 1.0-1.5mm. Immediately after the application of the mortar, apply the elastic tape Rayston Flex Joint Geo, with the geotextile sides down, onto the support and press onto it with a trowel or rigid roller so it saturates with mortar.

Later, apply another layer of mortar by brush, spatula or trowel smoothing the surface to obtain an even finish. It's recommended to profile the joint with adhesive tape to improve the finish.

CONNECTION BETWEEN PIECES

The unions between the two pieces of the tape are made with a patch of the same tape or an overlap of at least 40-50mm width welded with hot air, making sure to use enough heat to melt the TPE.

CURING

The necessary time before returning to service or permanent contact with water depends on the humidity and temperature conditions on the job site.



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Under normal conditions, like an outdoor application at 20°C and 50% H.R., curing time will be 3-4 days.

TOOL CLEANING

All working tools can be cleaned immediately after its use with water or solvent, depending on the used quantity of adhesive. Once hardened the material can only be removed mechanically.

PRESENTATION

30m rolls. Grey colour. Other lengths and colours available under request.

STORAGE

Rayston Flex joint Geo can be stored indefinitely in its original packaging, tightly closed, and in a fresh place, covered and protected from humidity, sunlight, and frost.

INSTRUCTIONS TO CONSIDER

Apply between +5°C and +30°C. Don't expose the material for a longer time to temperatures higher than 70°C. Don't apply if rain is expected in the 24 hours after the application. Don't use other adhesives than the recommended one. In case of negative water pressure, install a metal plate on one side. The system must be protected in case of possible suffering mechanical damage.

SECURITY

All information about the using conditions, application, storage, transport, and removal of chemical products is available in the material Safety Data Sheet. The removal of the product or their containers must be carried out by the final customer and always according to current legislation.

OTHER INFORMATION

The information contained in this DATA SHEET, as well as our advice, both written as verbal or provided through testing, are based on our experience, and they do not constitute any product guarantee for the installer, who must consider them as simple information.

We recommend studying deeply all information provided before proceeding to the use or application of any of our products and strongly advise conducting tests "on-site" to determine their convenience for a specific project.

Our recommendations do not exempt of the obligation of installers to deeply study the right application method for these systems before use, as well as to conduct as many preliminary tests as possible should any doubt arise.

The application, use and processing of our products are beyond our control, and therefore under the exclusive responsibility of the installer. In consequence, the installer will be the only responsible of any damage derived from the partial or total in-observation of our indications, and in general, of the inappropriate use or application of these materials.

This Data Sheet supersedes previous versions.



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