tecnolastic

VISCOELASTIC COATING SYSTEM

TECHNICAL DATASHEET

PRODUCT DESCRIPTION

The **tecnolastic** coating system is specially designed for pipelines and appurtenances that are either aerial, buried or submerged. This system consists of two-part product a **tecnolastic-paste** (viscoelastic polymer) and a layer of **tecnolastic-tape** (viscoelastic polymer) as a finishing product.

tecnolastic-paste
This product is a cold flow, self-primer and self-healing elastic paste for corrosion preventing and adhering extremely well to steel and factory applied pipeline coatings like PE, PP and FBE and concrete in irregular surfaces. **tecnolastic-paste** can flow into all irregularities of the substrate at operating temperature, its compounds do not cure, are water resistant and have a very low gas and water vapor permeability. **tecnolastic-paste** can be used for seal of irregularities or as a filler applied in tight spaces that are difficult to reach, such as cracks between flanges, stud threads, tank bottoms chimes, and around flange seals.

tecnolastic-tape
This viscoelastic tape is a self-primer, non-curing, cold applied corrosion prevention wrap adhering extremely well to the plant coating PE, PP, FBE and irregular equipment such as flanges, valves, pipe fittings, rings, manhole etc. **tecnolastic-tape** can cold flow into all irregularities of the substrate and self-healing of the complete coating system.

NOTE:

FOR USE IN TANK CHIME AREA:
For the protection of the tank chime area a previous application of **tecnolastic-paste** is required to seal the gap spaces and cracks existing in the annular space between the tank chime area and concrete ring, then the **tecnolastic-tape** is applied covering the is applied covering the perimeter tab and part of the concrete surface.

FOR USE AS A PIPE COATING AND FITTINGS:
For this application it is recommended to use **tecnolastic-paste** plus **tecnolastic-tape** and ending with the **tecnolato-shield** tape as mechanical protection.

MAIN FEATURES

- Primer free
- Constant film thickness.
- Conforms to irregular shapes.
- Inert to ageing and weathering.
- It can be self-repair for small holidays in the coating system.
- Resistance to low temperatures without getting brittle.
- 100% coverage rate, it is completely waterproof and anti-corrosion.
- Environmentally friendly, no health and safety hazard to humans.
- Excellent performance with minimum surface preparation.
- Application for corrosion protection in aerial-buried crossings.
- Application for corrosion protection of pipelines aerial or buried.
- Excellent resistance to UV rays.
- Excellent resistance to cathodic disbondment, compatible with cathodic protection.
- Excellent operation in areas with limited access.
- It is also appropriate for irregular shapes.

- Excellent resistance to water, acids, alkalis, salts, or organic soils, polar solvents etc.
- It does not require curing time and the service is immediate, increasing the production time.
- It does not require surface preparation with sandblasting or shot peening; a hand tool cleaning is enough.
- There are no specific surface or environmental conditions for its installation, only dew point control is necessary.
- **tecnolastic** system has an inert formula and does not degrade with time, which ensures that the product has high durability.
- Environmentally friendly and none toxic.

In a coating system, the first layer of self-primer **tecnolastic-paste** is applied to irregular surfaces of the metal if required (valves, appurtenances, etc.) then a **tecnolastic-tape** is applied directly to the metal or over the **tecnolastic-paste**, the **tecnolastic-tape** is resistant to UV rays, thus obtaining a long-lasting coating system, which can even be used for transitions from buried to aerial ducts.

SURFACE PREPARATION

A pre-cleaning of the surface has to be done before the surface preparation according to SSPC SP1 – solvent cleaning, using water or paint solvent to remove oil and other existing contaminants. The surface must be prepared with hand tool cleaning, removing all calamine, oxide, paint, and other materials according to SSPC SP2/SP3 – hand and power tool cleaning.

Although the **tecnolastic** system is designed for direct application over the metallic surface, in some cases it can be installed over an existing coating, if it has excellent adhesion; it is considered that the coating can remain on the substrate if it cannot be lifted or detached with a spatula.

Before the application of **tecnolastic-paste** or **tecnolastic-tape**, the surface needs to be completely free of dust, dirt, oil, and other contaminants, which can be done using water or solvent according to SSPC SP1.

INSTALLATION CONDITIONS

There are no specific conditions of substrate humidity or environmental conditions for the coating system, only the dew point temperature control is required, **tecnolastic** system do not require induction time and can be applied as soon as the bag or tape is opened. It is also clear that the remaining product that was not used can be closed and saved for the next application because the product never cures.

INSTALLATION

tecnolastic-paste:
After the surface preparation is finished, several layers of **tecnolastic-paste** are applied to edges of flanges, nuts, washers, bolts, and appurtenances to obtain a uniform surface.

tecnolastic-tape:
It can be used directly over the metal if the surface is homogeneous or over the **tecnolastic-paste** if this product was used obtain a uniform surface.

For large diameter pipelines it is recommended that two installers work together with the tape's overlapping, each one located at one side of the pipeline.

QUALITY CONTROL

- Verify that all the calamine, oxide, paint and other contaminants were removed after surface preparation, according to SSPC SP2/SP3 – Hand and power tool cleaning.
- Test with holiday detector at 10 kV over the **tecnolastic system**.
- Visual inspection to identify and correct areas with blisters or insufficient overlapping.

tecnolastic SYSTEM PROPERTIES

PROPERTY	TEST METHOD	PERFORMANCE
Color		Green
Density		1.4 g/cm3
Thickness	ASTM D1000	≥1.8 mm
Peel Strength to steel (23℃)	ASTM D1000	≥5N/cm
Peel Strength to PE (23℃)	ASTM D1000	≥5N/cm
Peel Strength to steel (-45℃)	ASTM D1000	≥5N/cm
Shear Strength to steel (23℃)	EN 12068	≥0.02 MPa
Shear Strength to steel (-45℃)	EN 12068	≥0.02 MPa
Specific Insulation Resistance	EN 12068	≥10^8 Ω.㎡
Dielectric strength	DIN 53481	≥10kv/mm
Water Absorption	ASTM D 570	＜0.03%
Cathodic Disbondment	*EN 12068*	≤20 mm-rad
Drip Resistance @85 ℃for 72 hours		No dripping
Heat aging (100d, 90℃)		Coverage Rate≥99%
Chemical Resistance （90d, 10% HCL）		No change
Chemical Resistance （90d, 10%NaOH）		No change
Chemical Resistance (90D, 3%NaCl)		No change
Hot water immersion @60℃for 120 days		No change
Operational Temperature Range		-45℃ to 80°C

SAFETY MEASURES

All the **tecnolastic** and **tecnolato** products have 100% of solids per volume, so they use a low quantity of solvent, however, it is recommended to use organic vapor filters for their installation as a precaution. Use personal protection equipment for any activity that require our products.

TECHNICAL SERVICE

For any technical questions regarding the use of our products, let us support you by contacting our commercial technical department. Contact us, we have NACE certified cathodic protection professionals ready to support you in product selection.

PRODUCT ORDERING INFORMATION

The following table shows the packaging information of each product.

PRODUCT	USE	PACKAGING INFO	PACKAGING APPEARANCE
tecnolastic-paste	Surface primer and use for round up irregularities on surface.	Bag: - 1.5 kg Color: Green	
tecnolastic-tape	Surface primer and use for round up irregularities on surface.	Tape Thickness : 1.8 mm Tape Width. : 50, 100, 150mm or other. Tape Length. : 10, 15, 20, 30m or other. Tape Color. : Green or other. Core Diam. : 76 mm or other.	
Tecnolato-shield	Coating system product.	Roll - 0.38mm x 150mm x 30m. Color: Black, White or Yellow.	

WARRANTY AND LIMITATION OF LIABILITY

TECNOLOGIA TOTAL will not be in any case responsible for damages of any nature that could be derived from an inadequate use of the product. Before using the product, the user must determine if the product is suitable for its intended use, taking all risks and liability that could be derived from its use.

If it's proved that a product is faulty due to manufacturing or its material at the time of sale, or that it does not fulfill during its warranty period the indicated properties in this technical sheet, the only responsibility of TECNOLOGIA TOTAL will consist of replacing the buyer with the quantity of product that is found to be defective. TECNOLOGIA TOTAL does not take any responsibility for any additional cost such as manufacturing cost, withdrawal or re-application of the products. If TECNOLOGIA TOTAL offers a warranty to their clients, express or implicit, or a compensation that differs from the stablished in this section, this stipulation cannot be altered unless a signed agreement by the parties.