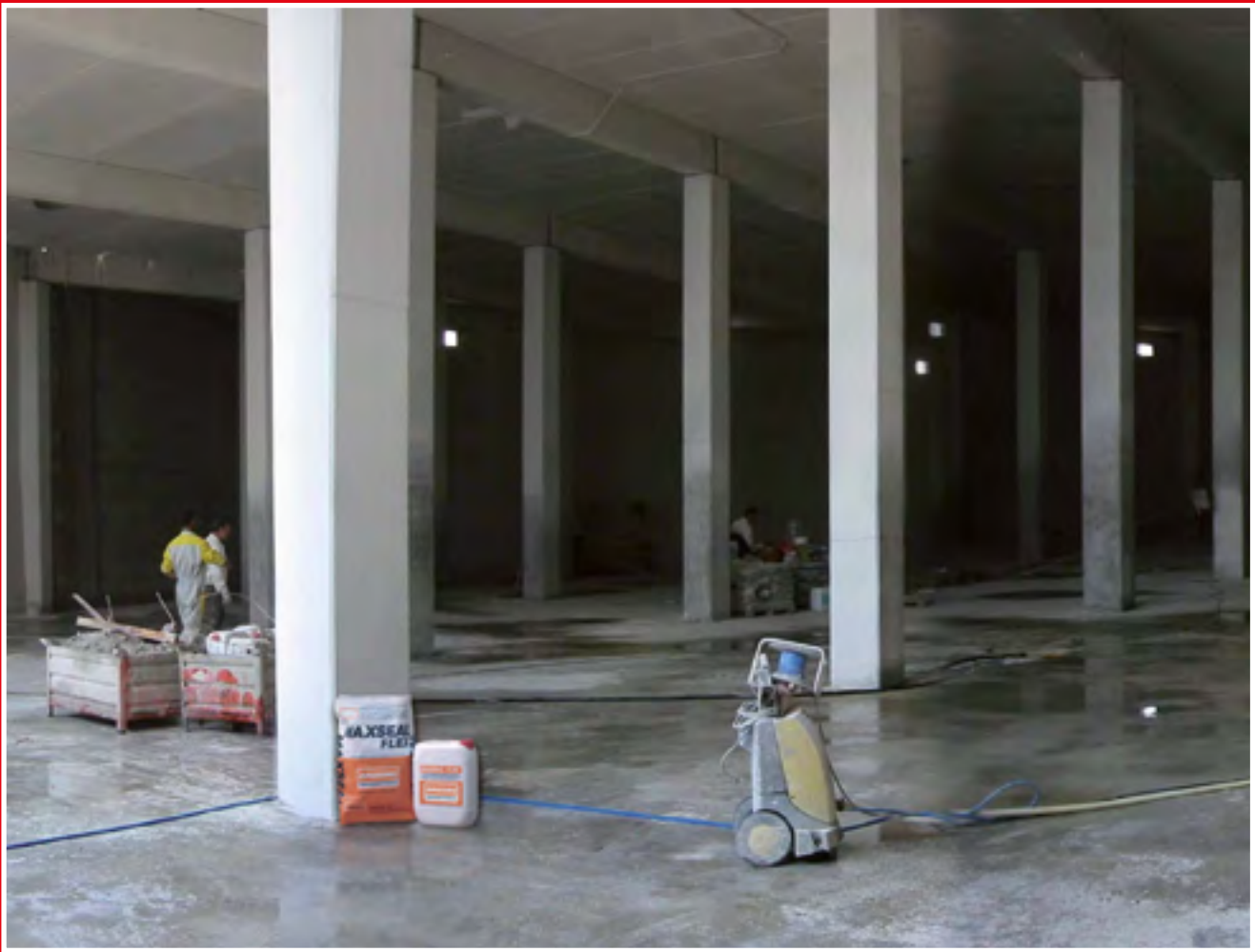




PRODUCTS AND SYSTEMS



Waterproofing of Reservoirs with MAXSEAL® FLEX System



Flexible Cement-based Coating for Waterproofing of Reservoirs



COMPANY PROFILE

DRIZORO S.A.U. is a Spanish company established in **1977**, beginning its activity as a manufacturer of chemical products for construction. Nowadays, the company is a leader on supplying speciality products and systems designed for waterproofing, concrete repair, flooring and decorative finishes.

Our **Headquarters** and Production Plant is based in **Madrid** (Torrejon de Ardoz) - Spain. This is also the base for all operations of the different departments; Production, Research & Development, Laboratory, Technical, Sales, Marketing and Administration.

COMMITMENT TO QUALITY AND ENVIRONMENT

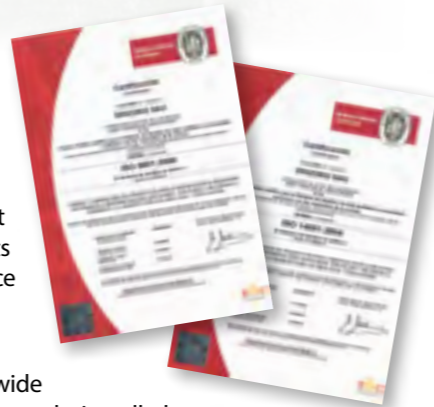
Our strong commitment to Quality Control and the Environment has led us to establish an Integrated Quality and Environmental Management System. This is based on the ISO 9001:2008 and ISO 14001:2004 standards. This system was certified by *Bureau Veritas Quality International*.

COMMITMENT TO RESEARCH, DEVELOPMENT AND INNOVATION

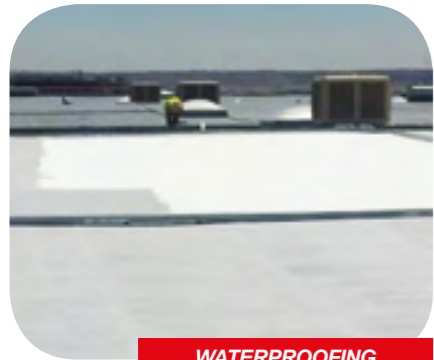
Our strong commitment to Research and Development of both our product range and of human resources enables us to offer the market innovative systems with a high standard of quality whilst being mindful of environmental concerns. These developments are transferred into improvements to our products range. This is based on substantial market research, including on-site experience under the most adverse worldwide conditions, combined with laboratory studies.

TECHNICAL ASSISTANCE

Our Technical Department and Sales Network comprises of highly qualified professionals with wide experience and trained in the construction industry. They provide personalized advice to our clients during all phases of construction in order to specify the most suitable system of products.



DRIZORO TECHNICAL SOLUTIONS



WATERPROOFING



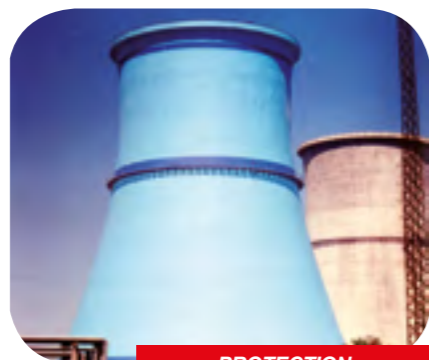
STRENGTHENING



DECORATION



REPAIR



PROTECTION



OTHER USES

Waterproofing of Reservoirs

Introduction

Nowadays, there is a high demand in industry and society for different water storage and treatment processes due to the new regulation related to environment protection. Some examples are the industrial, municipal sewage water treatment, drinking water management, fire fighting systems, etc.

DRIZORO, S.A.U. is targeted in establish technical solutions for in situ storage tanks, precast tanks and in its different storage ranges in order to meet this important demand. These proposed solutions have several values or technical requirements of potability, durability, chemical resistance, breathability, mechanical strengths

and performance with the purpose of satisfying the most exigent claims from the customers.

From the point of view that an appropriate waterproof and protective coating provides a long lasting for water retaining concrete structures, **DRIZORO**

S.A.U. according to its philosophy of innovation, provides to the customers with the most suitable waterproofing systems which have been specifically designed for each case and specifications in particular. In addition, these proposed systems always respect the environment requirements and water quality regulations. It is because of this that the systems implemented and provided by the Company, are credited according to the **International Regulations** such

as **Directive 98/83/CE** for sanitary conditions of drinking water quality which ensure the quality of the production, distribution and inspection of water intended for human consumption. These regulations establish that any substance used in the treatment or distribution process of the water destined to the human consumption cannot perturb the quality the water.



Waterproofing of Reservoirs

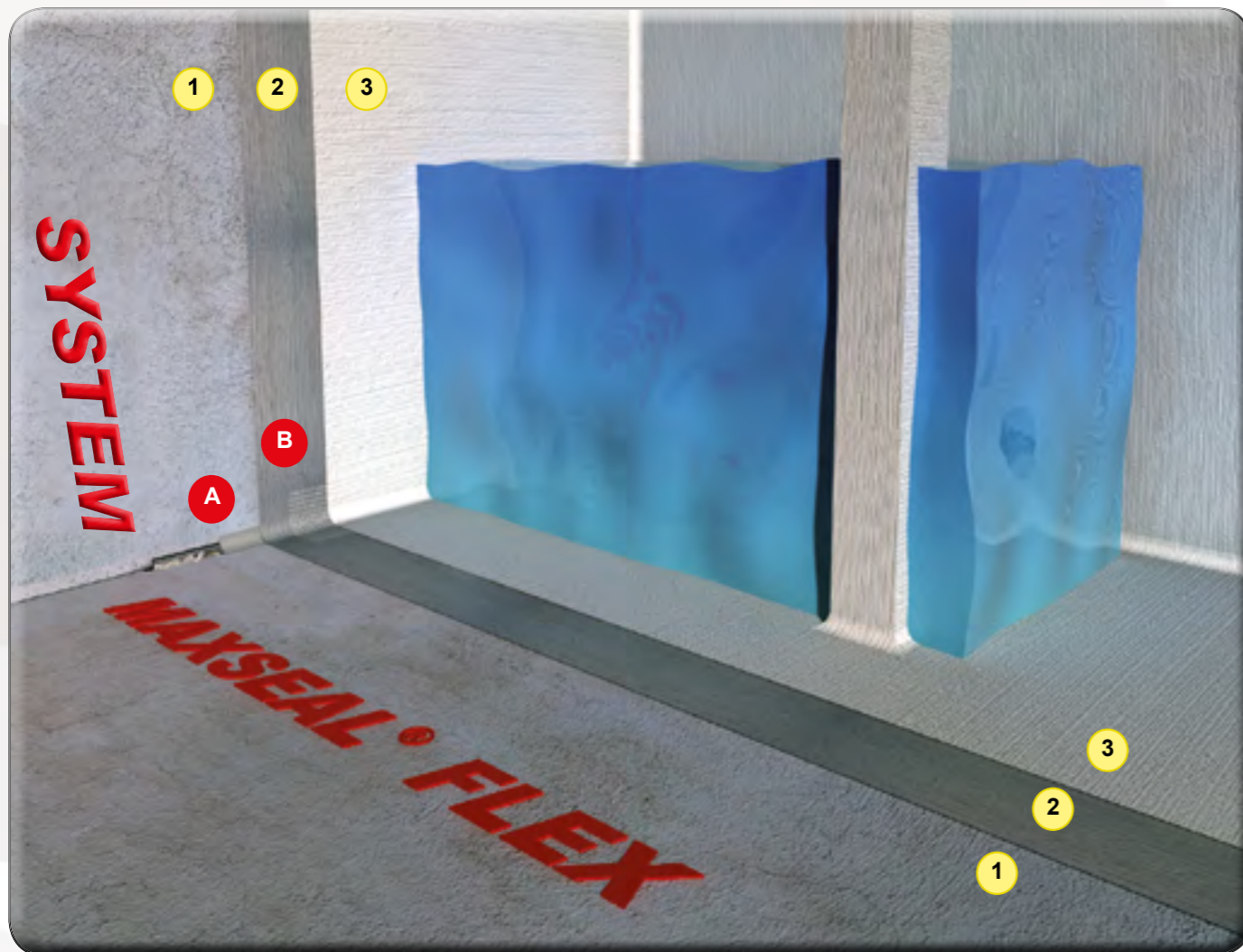
MAXSEAL® FLEX System

MAXSEAL® FLEX system consists of a continuous coating of two-component, flexible waterproofing mortar. It is applied in two coats, with a load of about 1-1.5 kg/m² per coat, providing a complete sealing of the reservoir in less than 2 mm thickness.

MAXSEAL® FLEX is a mortar especially indicated when concrete surface presents micro-cracks or is subject to small movements or vibrations. It acts as an anti-fracture membrane by bridging microcracks.

MAXSEAL® FLEX is highly resistant to abrasion, seawater and other aggressive acidic waters. It is permeable to water vapour, and also suitable for contact with drinking water (European Directive 98/83/CE and other international regulations). It withstands both high positive and negative hydrostatic pressure conditions.

One component version for **MAXSEAL® FLEX** is available; **MAXSEAL FLEX -M**

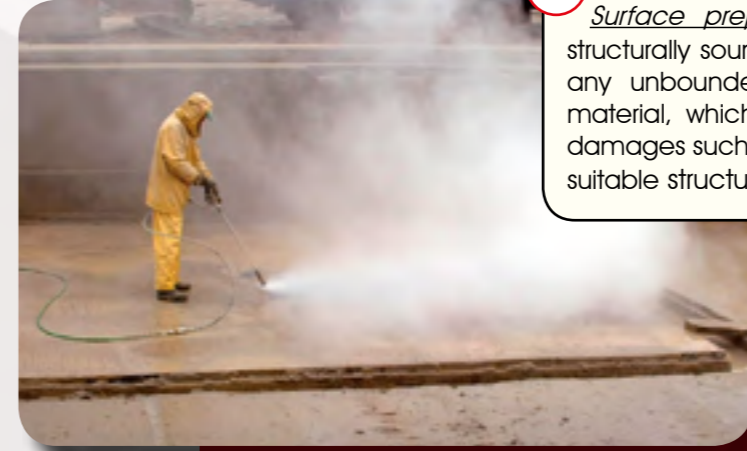


TREATMENT OF CORNERS
 A.- Concave corner: **MAXREST®**
 B.- 1st coat of **MAXSEAL® FLEX** reinforced with **DRIZORO® MESH 58**

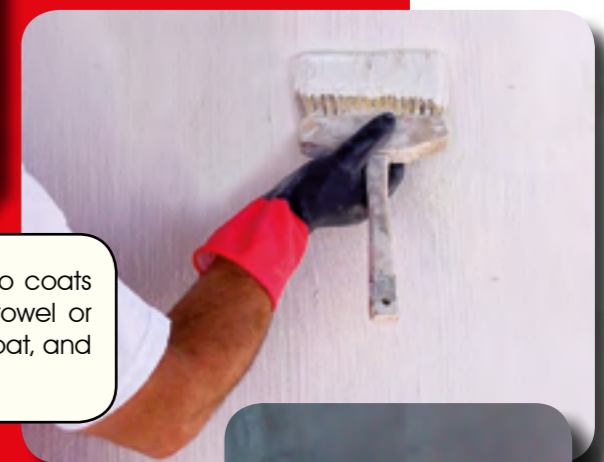
1.- Surface preparation
 2.- 1st coat of **MAXSEAL® FLEX**
 3.- 2nd coat of **MAXSEAL® FLEX**

Application Procedure

1 *Surface preparation:* Concrete must be fully cured and structurally sound. Before applying **MAXSEAL® FLEX**, remove any unbounded material and clean the surface from any material, which could affect the adhesion. Patch any surface damages such as defects, cavities, honeycombs, peelings with a suitable structural repair mortar: **MAXREST®** / **MAXRITE® -F**



2 *Application:* Dampen the surface, and then apply two coats of **MAXSEAL® FLEX** using a brush, broom, roller, trowel or spraying means with a coverage of 1,0-1,5 kg/m² per coat, and in perpendicular direction each other.



3 *Curing:* Observe a curing time of 14 days at 20° C and 50 % R.H. for permanent immersion applications.



Advantages of MAXSEAL® FLEX System

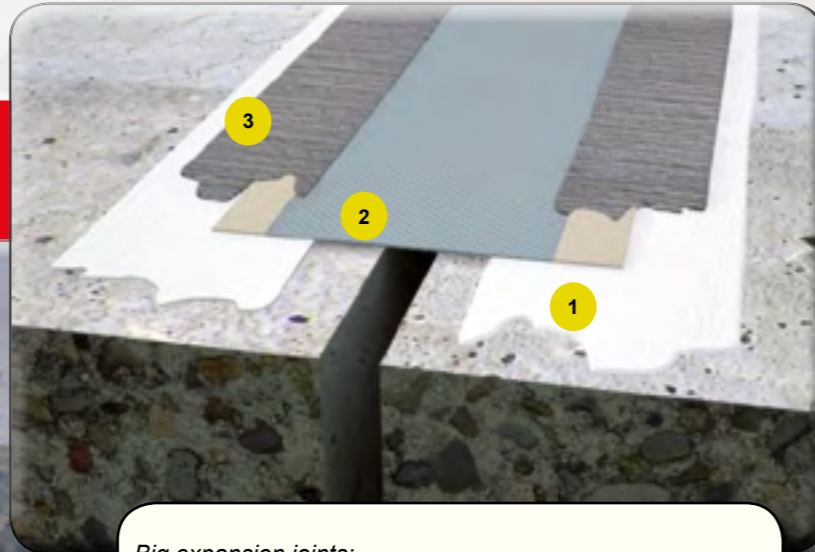
- Provides a fully-flexible coating which ensures complete waterproofing even in the most severe conditions, such as high negative hydrostatic pressure conditions.
- Covers shrinkage and hairline cracks of the concrete. Acts as an anti-fracture membrane between the substrate and other finishing coats if applied.
- Excellent protection for concrete, being both CO₂ and chlorine (Cl⁻) barrier, and thereby preventing carbonation and electrochemical corrosion.
- Permeable to water vapour, allows the substrate to breathe. Resistant to abrasion and UV rays.
- Excellent adhesion and easy of use. Does not require bonding agents, and can be applied on wet surfaces.
- Long lasting without maintenance. Easy application by brush, trowel or spraying methods.

Application Details

1 Treatment of Joints

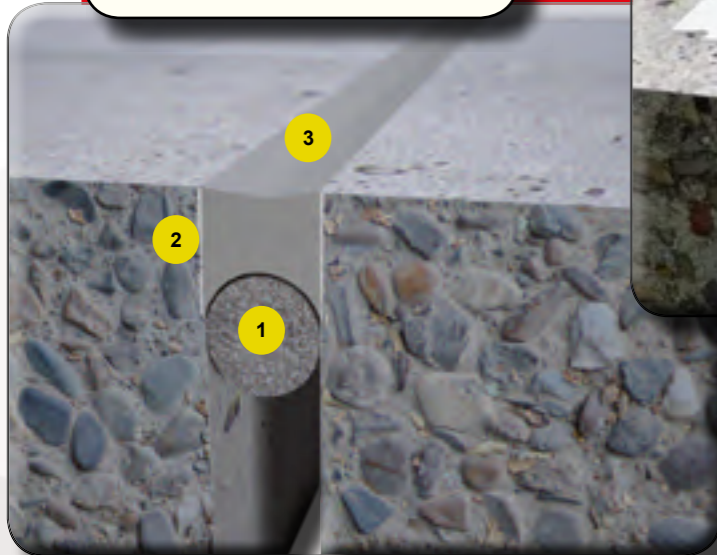
Joints subject to movements:

- 1.- Backer rod: **MAXCEL®**
- 2.- Primer: **PRIMER 1®**
- 3.- Sealant: **MAXFLEX® 100 W**



Big expansion joints:

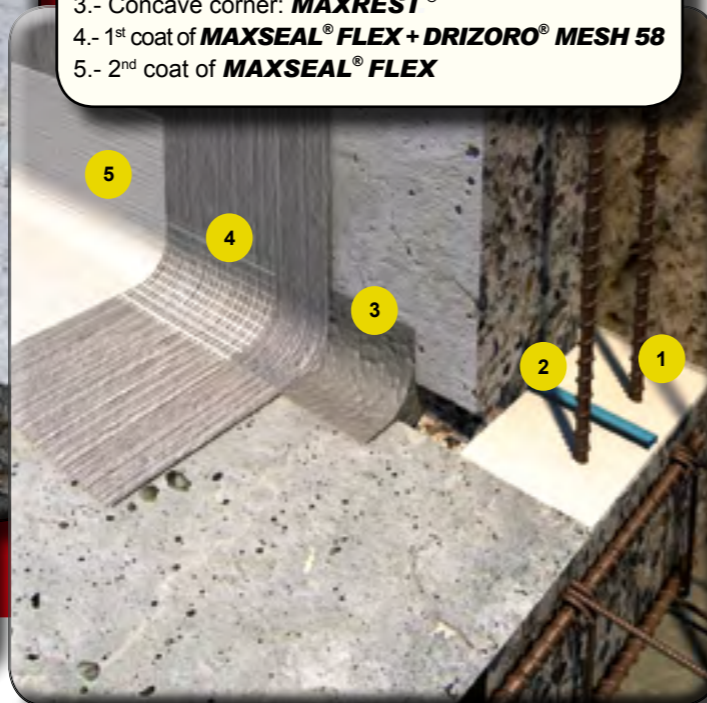
- 1.- Adhesive: **MAXSEAL® FLEX / MAXEPOX® JOINT**
- 2.- Elastic strip: **MAXFLEX® XJS**
- 3.- Finish: **MAXSEAL® FLEX / MAXEPOX® JOINT**



2 Treatment of Outstanding Points

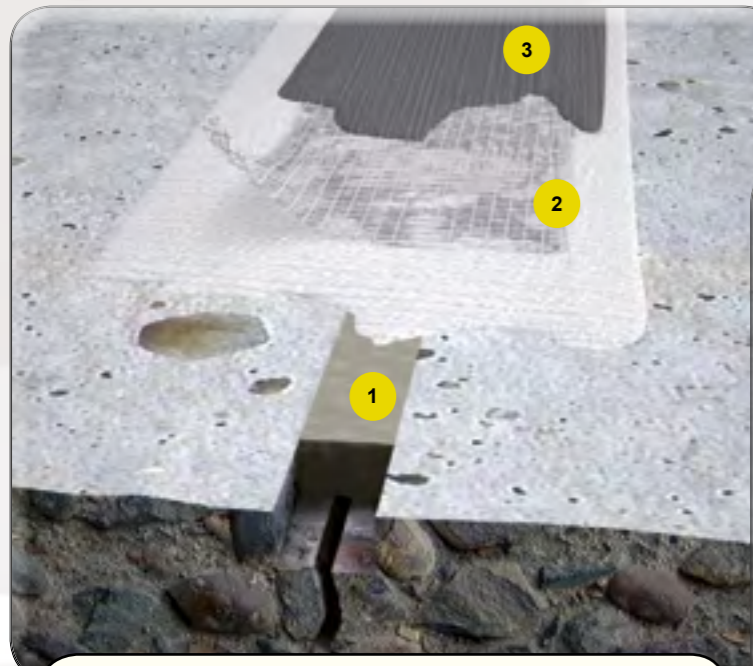
Wall-slab encounters

- 1.- Two coats of **MAXSEAL® SUPER**
- 2.- Water swelling profile: **MAXJOINT® W SEAL**
- 3.- Concave corner: **MAXREST®**
- 4.- 1st coat of **MAXSEAL® FLEX + DRIZORO® MESH 58**
- 5.- 2nd coat of **MAXSEAL® FLEX**



Cold joints, fissures and cracks non-subject to movements:

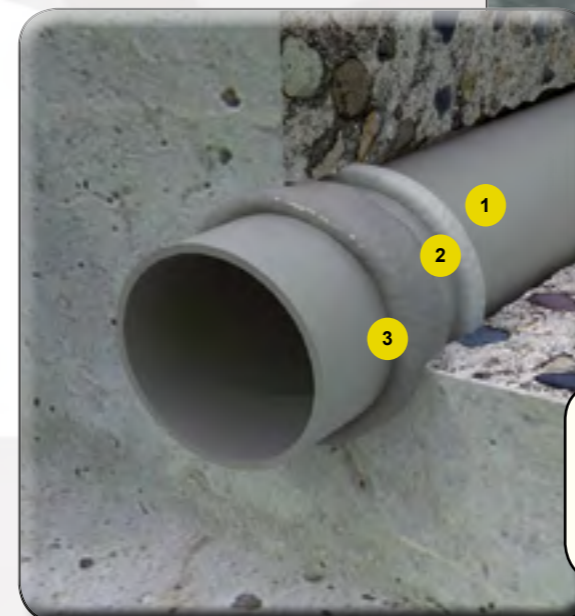
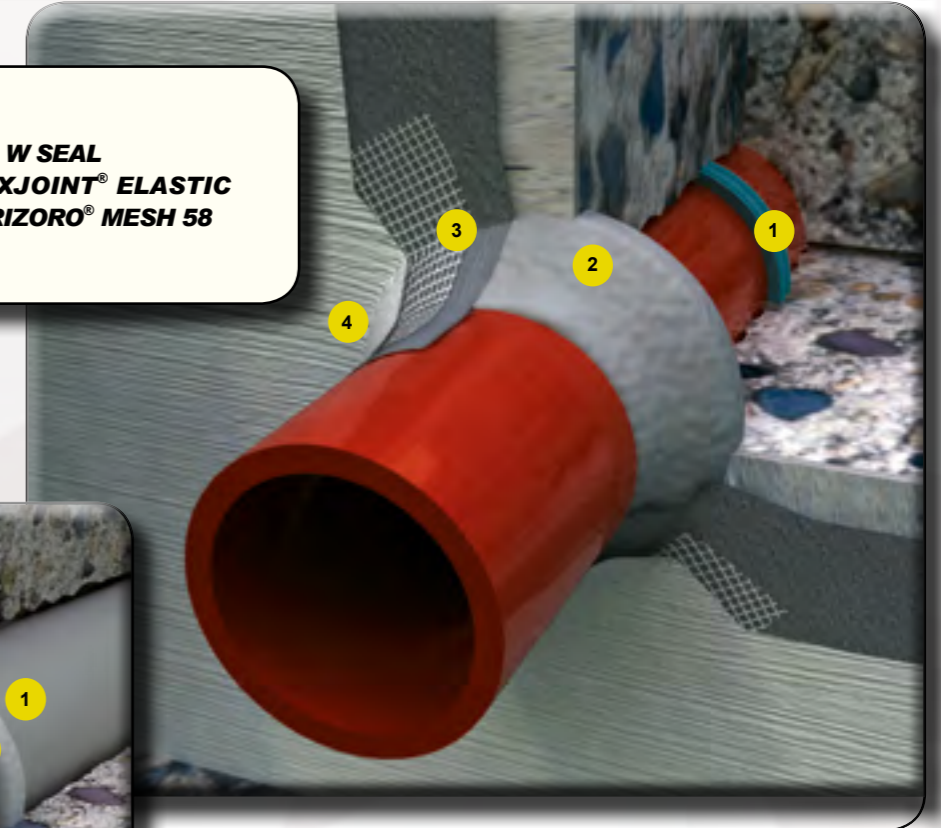
- 1.- Repair mortar: **MAXREST®**
- 2.- 1st coat of **MAXSEAL® FLEX + DRIZORO® MESH 58**
- 3.- 2nd coat of **MAXSEAL® FLEX**



3 Treatment of Passing Pipes

Metallic pipes:

- 1.- Water swelling profile: **MAXJOINT® W SEAL**
- 2.- Sealant: **MAXFLEX® 100 W / MAXJOINT® ELASTIC**
- 3.- 1st Coat of **MAXSEAL® FLEX + DRIZORO® MESH 58**
- 4.- 2nd Coat of **MAXSEAL® FLEX**



Plastic pipes of small diameter:

- 1.- Water swelling sealant: **LEAKMASTER®**
- 2.- Sealant: **MAXFLEX® 100 W / MAXJOINT® ELASTIC**
- 3.- Pipe

Performance Tests



DRIZORO, S.A.U. provides its clients a series of tests carried out by independent laboratories to ensure the performance of **MAXSEAL® FLEX** for waterproofing capability, suitability to be in contact with drinking water, flexibility, etc...

Complementary products

DESCRIPTION	CONSUMPTION	PACKAGING	APPLICATION FIELDS
MAXSEAL® FLEX Two-component, flexible, cement-based, waterproof and protective coating of concrete structures and masonry subjected positive, negative hydrostatic pressure conditions or both. Suitable for drinking water. Pigmented version: MAXSEAL® FLEX DECOR .	2,0 - 3,0 kg/m ²	Pre-weighed sets Standard: 35 and 7 kg Smooth: 32 and 7 kg	Flexible waterproofing and protection of surfaces subjected to movements or with high risk of fissures: Reservoirs, dams, drinking water tanks, irrigation channels, bridges, basements, lift pits, tunnels, retaining walls, wet rooms, waste water treatment plants, façades, etc. Protection of concrete structures against carbonation, freeze-thaw cycles, de-icing salts and chlorine penetration.
MAXSEAL® FLEX -M One-component, flexible, cement-based, waterproof and protective coating of concrete structures and masonry subjected positive, negative hydrostatic pressure conditions or both. Suitable for drinking water.	2,0 - 3,0 kg/m ²	22 kg bags	Flexible waterproofing and protection of surfaces subjected to movements or with high risk of fissures: Reservoirs, dams, drinking water tanks, irrigation channels, bridges, basements, lift pits, tunnels, retaining walls, wet rooms, waste water treatment plants, façades, etc. Protection of concrete structures against carbonation, freeze-thaw cycles, de-icing salts and chlorine penetration.
MAXPLUG® Quick-setting hydraulic mortar for stopping of water leaks under hydrostatic pressure.	1,67 kg/l	25 kg drums and 5 kg cans	Stopping of active water leaks with high hydrostatic pressure in above or below grade jobs: Basements, tunnels, foundations, reservoirs, tanks. Sealing of concave corners or joints in waterproofing jobs. Below grade water applications. Anchoring of bolts and other accessories.
MAXREST® Non-shrink, thixotropic, fast-setting, structural repair mortar.	1,7 kg/m ² and mm of thickness	25 kg bags and drums, 5 kg cans	Repair and restoration of concrete structures and façades; Cornices, corbels, lintels, raincaps, decorative elements, etc and cracks, fissures and honeycombs. Filling of joints previous to waterproofing works. Restoration of damaged lines and shapes of elements.
MAXRITE® -F Non-shrink, thixotropic, normal-setting, microsilica-enhanced, polymer-modified, fiber-reinforced structural repair mortar.	1,9 kg/m ² and mm of thickness	25 kg bags	Restoration of concrete structural elements of recovering the original shape and function. Reinforcement of concrete with increase or restoration of the bearing capacity by mortar screed. Restoration of the passivation of reinforcement.
MAXEPOX® JOINT Epoxy mortar with high mechanical and chemical properties for grouting of ceramic at wall and floor.	0,7 - 0,8 kg/m lineal meter of joint	Set de 10 kg	Adhesive placement of the elastic band MAXFLEX® XJS in sealing joints.
MAXFLEX® 100 W High-performance, modified-polyurethane sealant for permanent immersion joints and suitable for drinking water.	100 ml/m per 10x10 mm joint	Cartridges 300 ml and 600 ml bags	Sealing of joints and cracks in contact with potable water in storage tanks, channels, water treatment plants, etc. Expansion joints in different construction elements, pre-cast concrete, mortars, brickworks, etc. Sealing of joints in façades, curtain walls, windows and door outside frames, etc. Joints in contact with chemicals in storage bunds, chemical tanks, sewage treatment plants, etc
MAXJOINT® ELASTIC Elastic, two component cement-based, repair and sealing mortar for joints and cracks in concrete and masonry. Suitable for drinking water	0,13 kg/m per 10x10 mm joint	4 and 10 kg pre-weighed sets	Sealing of expansion joints in movement between concrete pre-cast structures. Joints in permanent immersion in pipelines, water reservoirs, water treatment plants, etc. Vertical joints in façades and building construction. Restoration of active cracks in concrete and masonry. Pointing mortar on substrates subject to movement.
MAXFLEX® XJS Elastic sealing system composed of TPE with lateral geotextile fleece edges suitable for expansion joints corners or and cracks	----	Rolls 20, 30 and 50 m, depending on version	Sealing of expansion joints in movement between concrete pre-cast structures. Joints in permanent immersion in pipelines, water reservoirs, water treatment plants, etc. Vertical joints in façades and building construction. Restoration of active cracks in concrete and masonry. Pointing mortar on substrates subject to movement to movement.
MAXJOINT® W SEAL Elastic and water swelling profile made of pre-formed hydrophilic resins that increase in volume up to 4 times when it is in direct contact with water for sealing of joints and cracks in concrete and masonry.	----	Rolls	Sealing of concrete construction joints subject to permanent water immersion in reservoirs, dams, channels, etc. Sealing of joints between pre-cast elements: tunnel shields, panels, sections, boxes, pipes, etc. Repair and sealing of fissures and cracks subject to continuous presence of water. Sealing of walls, joints and underground structures such as foundations, tunnels, galleries, etc. Sealing of metal or concrete pipes through walls.
LEAKMASTER® Moisture-cured, one-component water-swelling sealant with excellent elasticity for use in all kind of construction joints and cracks.	----	Cartridges 320 ml	Sealing construction joints and wall/slab joints subject to permanent water immersion. Sealing joints in heavy or light pre-fabricated panels, pre-cast units such as box culvert, utility vaults, etc. Excellent sealing of joints in pipe penetrations, form ties, around rebars. H-section steel beams and other waterproofing works where it is difficult or impossible to use pre-formed water-swelling profiles.



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