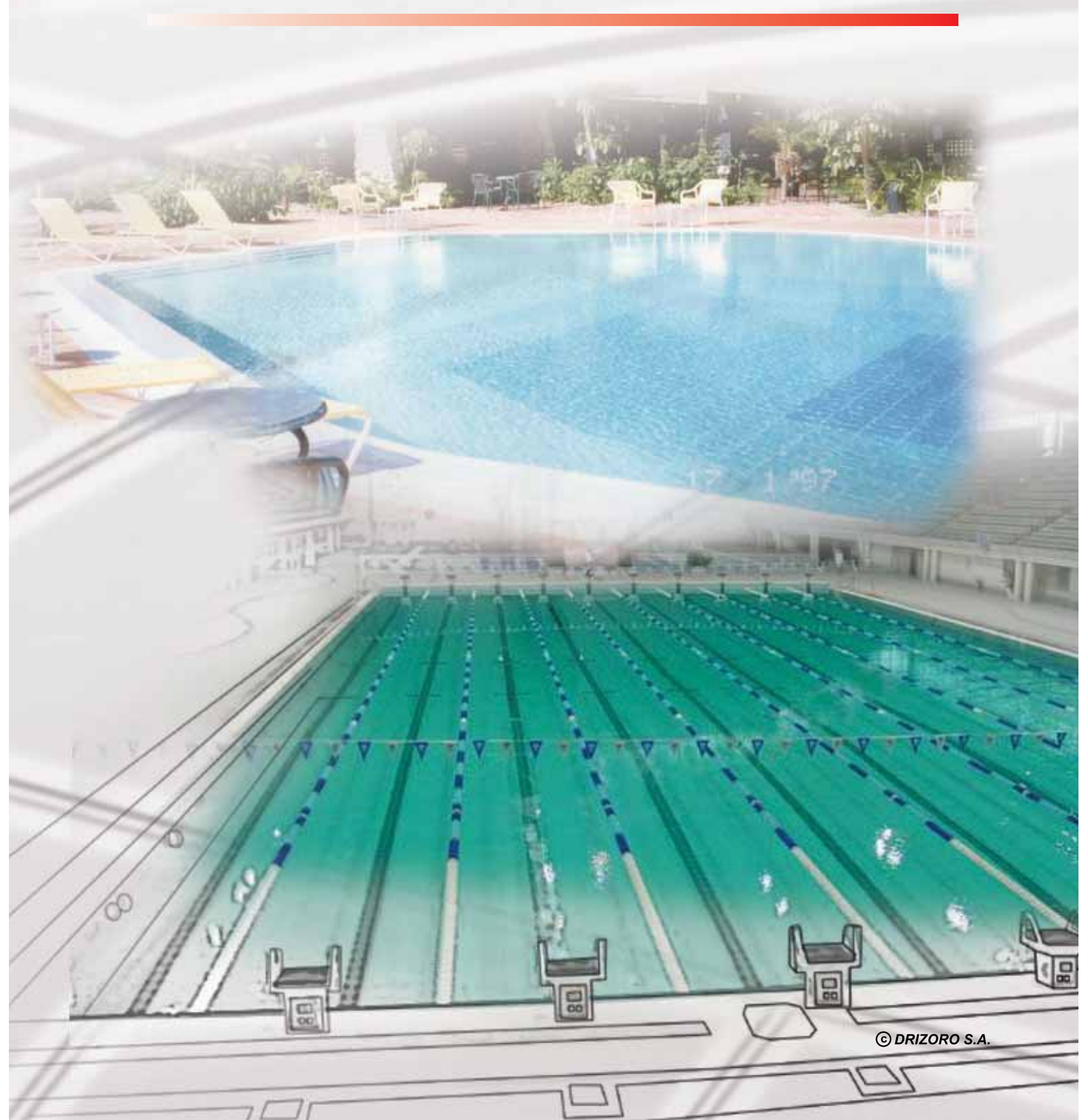




PRODUCTS AND SYSTEMS

Waterproofing of Swimming Pools



DRIZORO, S.A.

DRIZORO, S.A. was established on December 15, 1977 beginning its activity in the field of chemical products for the construction industry, with speciality products designed for the waterproofing, restoration, flooring and decorative finishes.

Since then an intense activity has been maintained in our factory improving the products, creating and developing a laboratory for the quality control and research, as well as complementary establishments to the rest of the elements comprising the different areas in the activity of **DRIZORO, S.A.**

Our commitment to Quality and permanent improvements has led us to establish a Quality System based on the **UNE-EN-ISO-9002** Standard with the accreditation number 73451 from **Bureau Veritas International**.

Our projected achievements, but in permanent evolution and modernisation, have allowed us the better development of national and international markets by implanting the **DRIZORO** Products.



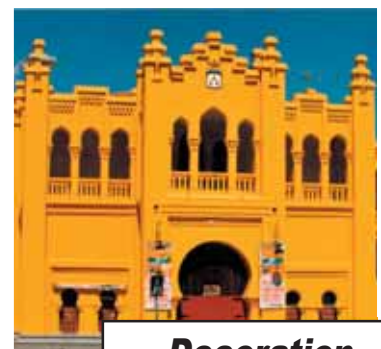
Drizoro Technical Solutions



Waterproofing



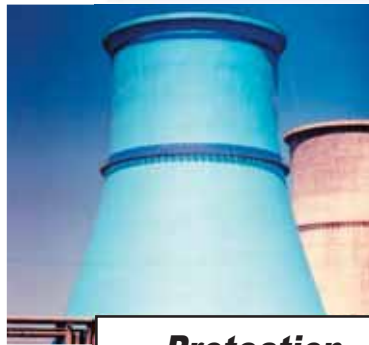
Reinforcement



Decoration



Reparation



Protection



Other uses

Waterproofing of Swimming Pools

Swimming pools which are one of the more extended construction elements in these days, require the use of products with the highest levels of technical characteristics and requirements in relation to waterproofing and mechanical properties. Starting with the clause that a right waterproofing and protection of the concrete will assure a longer last of the structure, **DRIZORO®** waterproofing systems are composed of materials that comply the more restrictive requirements for durability and reliability.



Proposed **DRIZORO®** systems provide a water-tight surface, i.e. a surface with no water leaks due to filtrations and, also protect the concrete surface against chemical attacks in order to avoid the deterioration. Finally, these systems provide the most suitable surface for placing of the top-coating which are used at swimming pool such as ceramic or tiles.

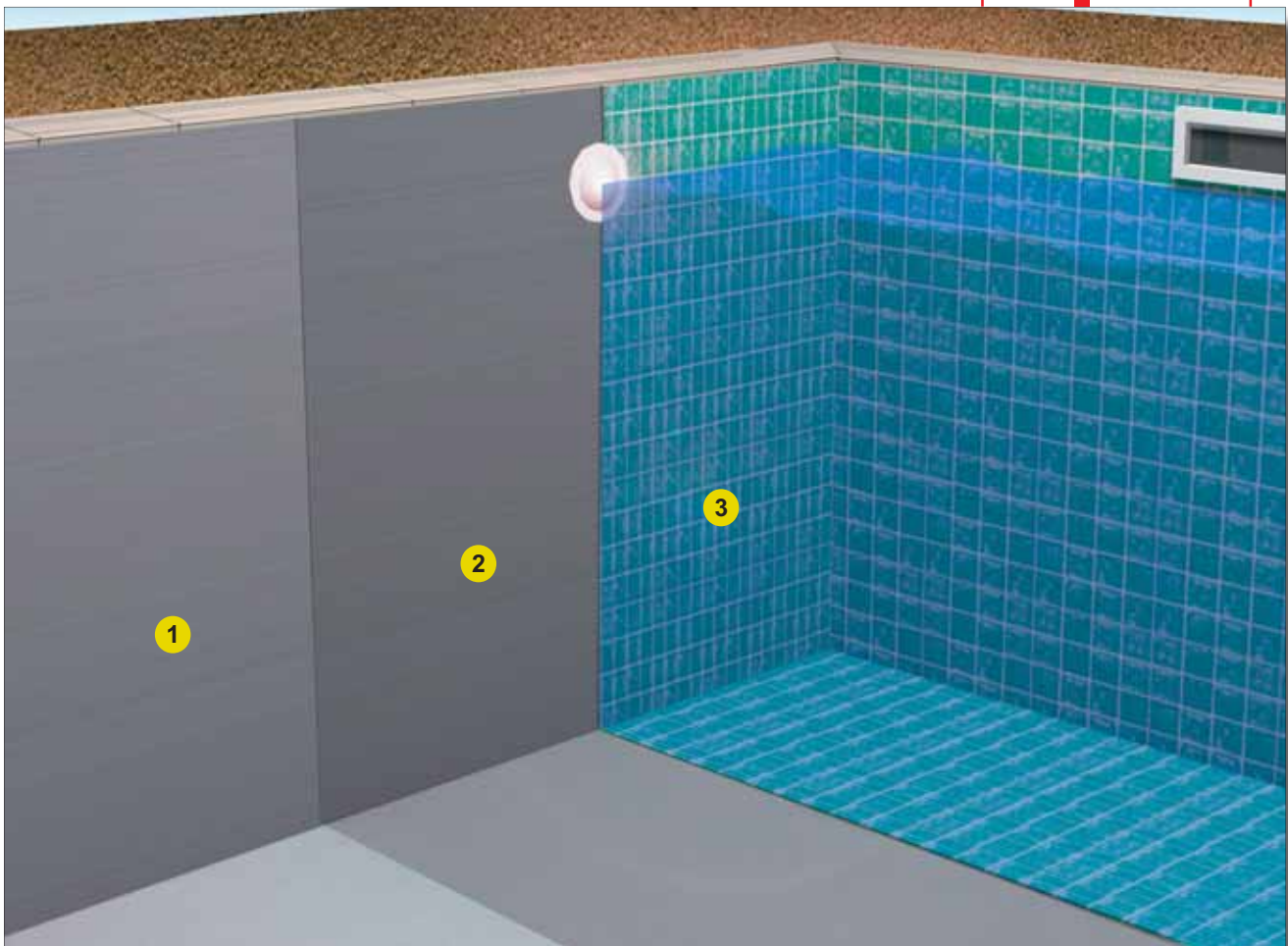
Also the proposed systems tackle the treatment of outstanding points which are present in the swim pool such as expansion joints, cold joints, slab-wall encounters, drainages, overflow points, skimmers, passing pipes, focus, stairs, etc.



Waterproofing of swimming pool

System **MAXSEAL FLEX**

Waterproofing of any swimming pool is achieved with the use of **MAXSEAL® FLEX** flexible and cement-based waterproofing mortar in order to provide a continuous coating. This material is applied in two layers with a approximate load of about 1,0-1,5 kg/m² per layers and with a total thickness of 2 mm. For concrete substrates with hairline cracks or when small movements or vibrations are expected **MAXSEAL® FLEX** is the most suitable product because of the fact of its flexibility properties.



- 1) First layer of **MAXSEAL® FLEX**, with a load of about 1,5 kg/m² and reinforced with 58 g/m² glass-fiber mesh.
- 2) Second layer of **MAXSEAL® FLEX**.
Consumption 1,0 - 1,5 kg/m²
- 3) Placing of the low porosity tile
 - a) **MAXKOLA® FLEX**, flexible thin layer bonding mortar
 - b) **MAXJOINT® FLEX POOL**, flexible and waterproof pointing mortar.

Carrying out of the waterproofing jobs



1

Before applying any **MAXSEAL® FLEX**, waterproof coating, a cleaning of the surface by water pressure cleaning, sand blasting, etc., is highly recommended in order to remove any loose particles or residue that could affect to the adhesion of the waterproofing

Prior to the application of the coating, surface to be waterproofed must be thoroughly washed down and saturated with clean water. Two layers of **MAXSEAL® FLEX** waterproofing mortars must be applied in order to get a total thickness of 2 mm. Materials can be applied by brush, broom or trowel. The use of spraying methods are recommended for the waterproofing of large areas.

2



3



Once **MAXSEAL® FLEX** has cured, tiles or low-porosity ceramics can be placed with the use of the **MAXKOLA® FLEX**, high performance bonding mortar, and finally a high performance and flexible pointing mortar such as **MAXJOINT® FLEX POOL** is applied in order to point the tiles. This system provides the most suitable solution for waterproofing of swimming pools wherein flexibility, high performance and durability with no maintenance are required. Also the **MAXSHEEN® POOL** flexible and acrylic-based waterproof and decorative coating can be used for top-coating.

4

Before putting into service, observe a curing period of time of at least 2 weeks.



Technical drawings

Passing pipes, skimmers, focus and other outstanding points

Swimming pools has some passing pipes for water inflow and outflow that go through the concrete walls and slab. Also other auxiliary elements such as focus, straits, skimmers are inserted into the concrete so that these out-standing points must be treated with special attention because of the fact that a lot of the leaks occurs through them.

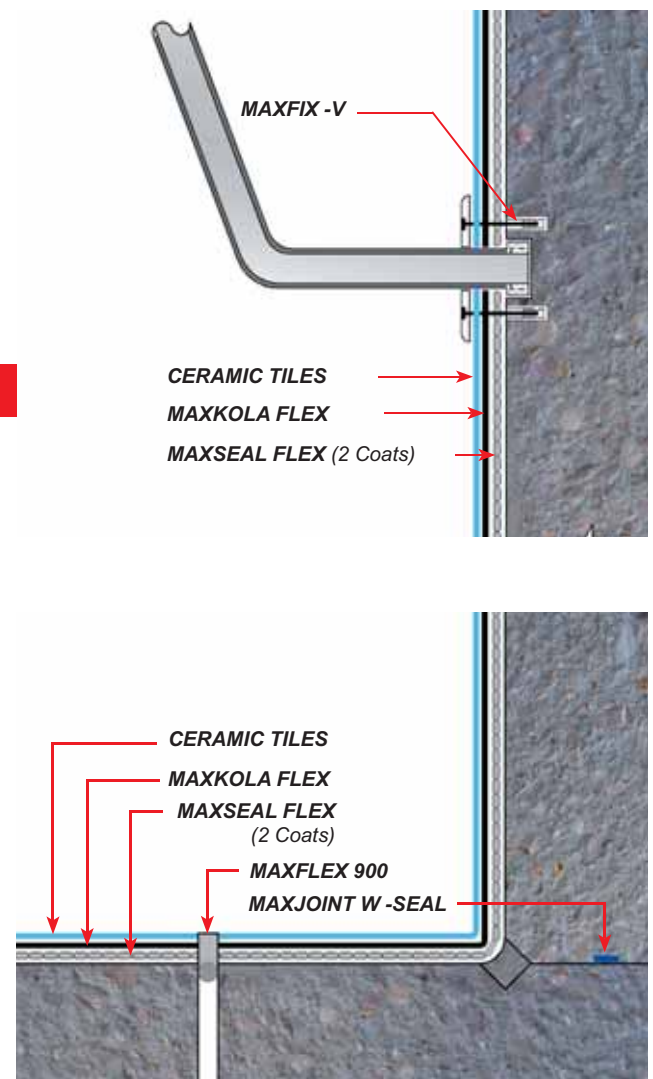
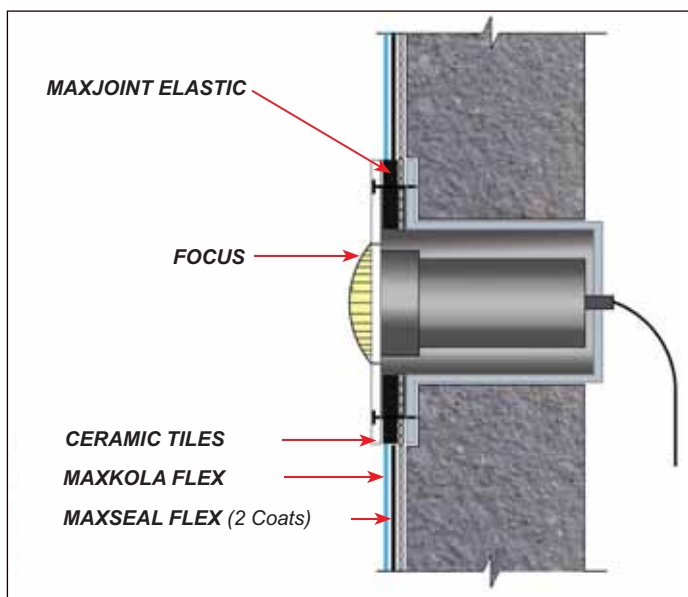
For the correct sealing of these points subjected to permanent immersion, **DRIZORO®** proposes the use of the **MAXJOINT® W-SEAL** water-swelling profile which swell in contact with water and are constantly elastic or the **MAXJOINT® ELASTIC** elastic cement-based mortar. Concrete around the pipe should be remove, and the profile should be placed in the gap between the pipe and the concrete. Then the remaining part of the gap should be filled **MAXREST®**, **MAXPLUG®** or **MAXJOINT® ELASTIC**. Once the mortar has set flexible and waterproof coating should be applied around the pipe on a strip and on a prepared surface.

Along slab-wall encounters, cold joints and non-active fissures, grooves should be made and filled with **MAXREST®** repair mortar in the shape of a cove. if they do not conduct water, or with **MAXPLUG®** if they do. In addition, along encounters, **MAXSEAL® FLEX** flexible waterproof coating reinforced with mesh should be used in stripes of approximately 10 cm either side of the corner.

For expansion joints, edges of the gaps must be cleared to sound base. Defects of concrete should be filled with any **DRIZORO®** structural repair mortar, After hardening of mortars, expansion gaps should be filled with a suitable sealant for permanent immersion such as **MAXFLEX® 900**.



Constructive Details



DRIZORO products

DESCRIPTION	APPROXIMATED CONSUPTION	PRESENTATION	APPLICATION FIELDS
MAXSEAL® FLEX 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 .	2,00 - 3,00 kg/m ²	Pre-weighed sets Standard: 35 and 7 kg Smooth: 32 and 7 kg	Waterproofing of below grade concrete structures and masonry subjected to negative hydrostatic pressure: Tunnels, galleries, basements, retaining walls, etc. Waterproofing of drinking water tanks, reservoirs, swimming pools, channels and dams. Waterproofing and protection against weathering of façades, traditional brick façades, ceramic and concrete block masonry units, pre-fabricated panels, etc.
MAXSHEEN® POOL Flexible, acrylic-based, waterproof and decorative coating with fungicide and bactericidal properties. For swimming pools, ponds and fountains.	0,25-0,35 kg/m ²	25 kg and 5 kg drums	Protection and decorative finishing of surfaces in permanent contact with water: swimming pools, ponds and fountains.
MAXREST® Non-shrink, thixotropic, fast-setting, structural repair mortar.	0,15 - 0,17 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.
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.
MAXJOINT® ELASTIC Two component, elastic mortar for sealing joints and cracks subject to movement in concrete and masonry.	0,13 kg/m per 10x10 mm joint	10 kg pre-weighed sets	Sealing of vertical and horizontal joints and fissures subjected to movement up to 15% in pre-fabricated elements, façades or joints in permanent contact with water: Swimming pools, channels, pipelines, water tanks, reservoirs, waste water treatment plant, etc. Repair of fissures and cracks subjected to movements in tanks, swimming pools, etc. Sealing of penetrating pipes and decorative or functional elements in permanent immersion.
MAXFLEX® 900 Two component, low modulus, high chemical resistant, polysulphide-based, elastomeric sealant of permanent contact with water.	100 ml/m per 10x10 mm joint	2,5 l pre-weighed sets	Sealing of joints in concrete and masonry: Water tanks, channels, irrigation ditches, traps, swimming pools, waste water treatment plants, etc. Sealing of expansion joints in industrial floors: chemical industries, breweries, daily plants, etc.
MAXJOINT W -SEAL Water swelling profiles for the sealed of joints and cracks in permanent contact to water.	----	Rolls	Sealing of working and expansion joints in concrete subjected to permanent immersion. Reparation of cracks and fissures in swimming pools, tanks, basements, etc. Sealed of joints between pre-fabricated elements. Sealed of joints in reinforced concrete walls and foundation slab. Sealed of passing pipes through the walls.
MAXKOLA® FLEX Flexible, thin layer, high performance, one component, cement-based bonding mortar for non porous tiles on traditional masonry, blocks, renders and non rigid substrates in interior and exterior applications.	1,5 kg/m ² and mm of thickness	25 kg bags	Tiling and paving over exterior and interior walls and surfaces subjected to movements with low porosity tiles of kitchens, wet rooms and bathrooms in housing hospitals, hotels, laboratories, etc. Fixing of ceramic tiles in exterior applications: Façades, roofs, patios, terraces, balconies, etc. Ceramic coating of swimming pools with vitrified ceramic, natural stones, gres, marble, big format pieces, etc.
MAXJOINT® FLEX POOL Flexible, waterproof, high performance, pigmented cement-based, repair and pointing mortar for joints of ceramic on non rigid substrates. Available in different colours.	1,7 kg/l	25 kg bags	Restoration of joints in old ceramic tiles. Pointing of tiles in swimming pools. Flexible and compatible system in combination with MAXKOLA® FLEX
MAXFIX® -V Fast curing, two component, vinyl ester-based, fastening, anchoring and bonding resin for anchors into concrete and solid or hollow masonry.	Depending on size and depth of the hole	380 ml two-part biaxial type cartridges	Fastening, anchoring and bonding of anchor plates, metal structure angles and profiles, to hardened concrete and hollow or solid masonry. Anchoring of reinforcing bars, anchors on ventilating façades, banisters, rails, installations, lift rails, bathroom fittings, awning, lights, street furniture, street lighting, etc. Placing of fences.





System Integrated of Quality and Environment Management,
 ISO 9001:2000
 ISO 14001:2004



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