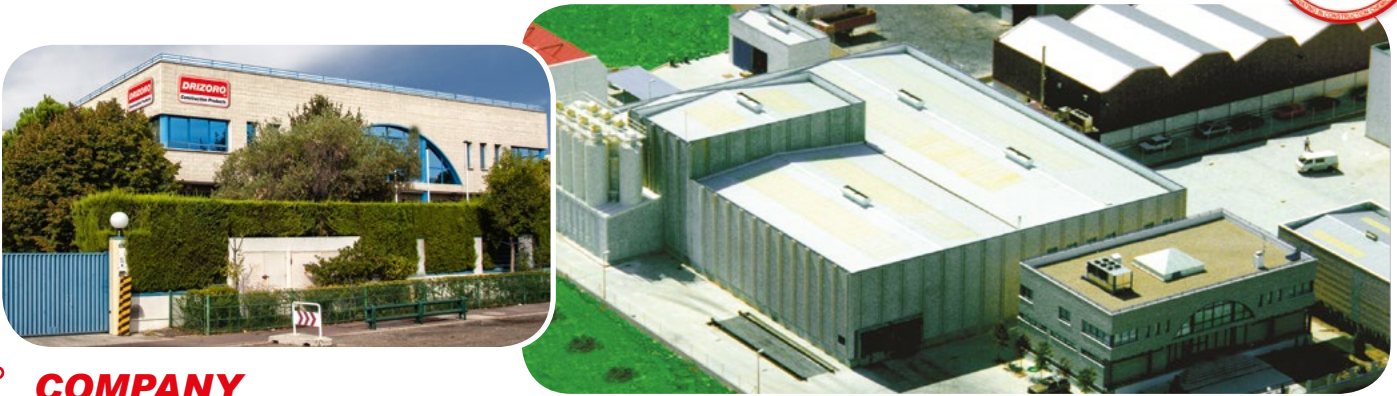


Polyurethane-cement flooring systems of high mechanical and chemistry performance



MAXURETHANE[®] CEM System



COMPANY

DRIZORO S.A.U. is a Spanish company established in 1977, beginning activity its 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 (**Torrejón 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 9001:2015 and ISO 14001:2015 standards, and it was certified by *Bureau Veritas Quality International*.

COMMITMENT TO RESEARCH, DEVELOPMENT AND INNOVATION

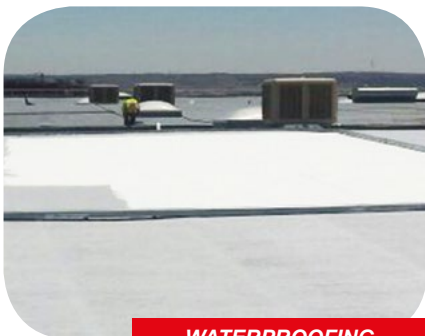
Our strong commitment to Research and Development of both our product range and of human resources enables us to offer the market innovative systems with a high standard of quality whilst being mindful of environmental concerns. These developments are transferred into improvements to our products range. 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.



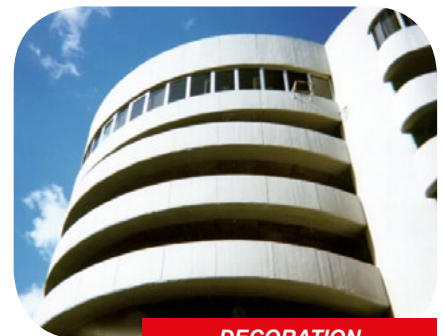
DRIZORO TECHNICAL SOLUTIONS



WATERPROOFING



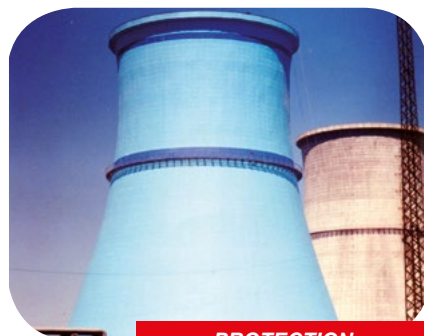
STRENGTHENING



DECORATION



REPAIR



PROTECTION

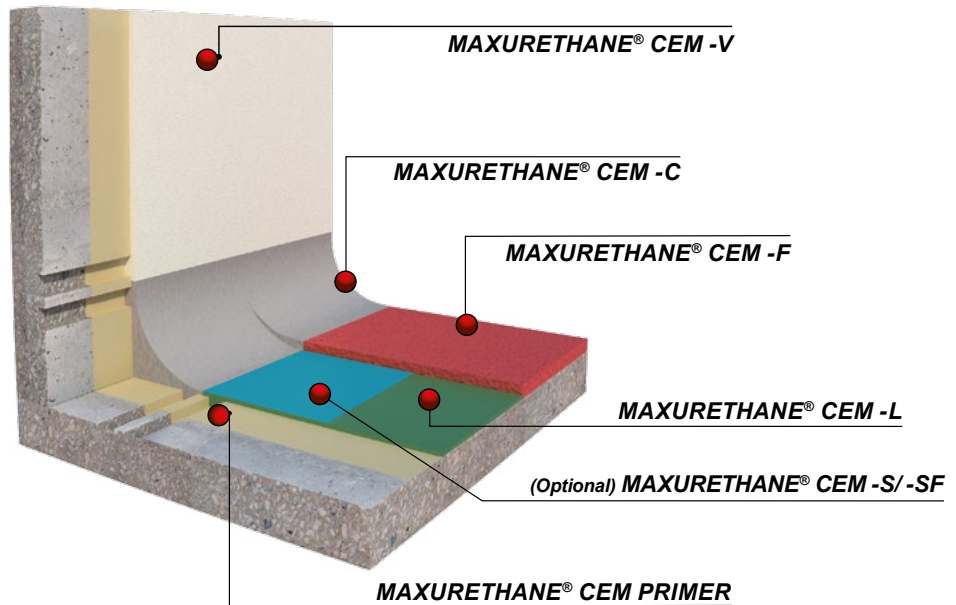


OTHERS USES

DESCRIPTION OF THE SYSTEM

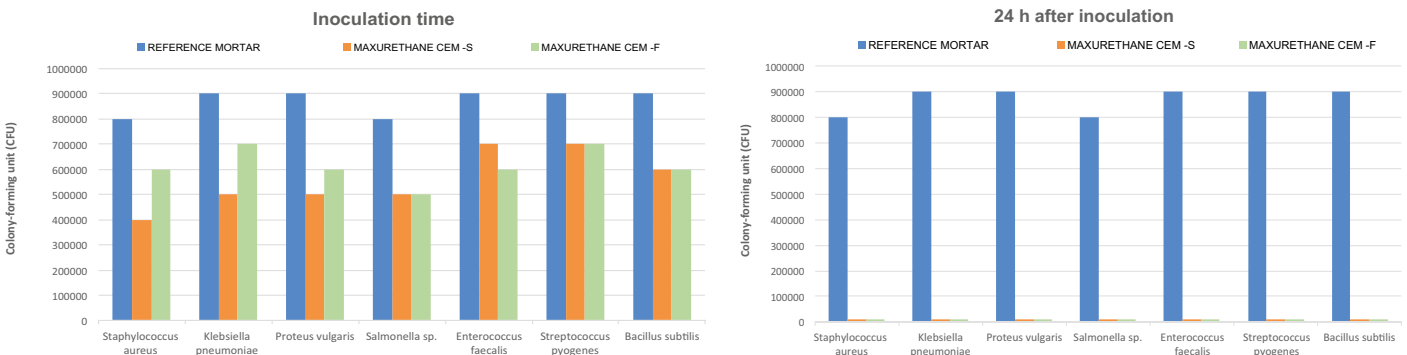
Modern industry due to its manufacturing processes and/or storage conditions requires the use of high-performance coatings resistant to chemical agents, abrasion, extreme temperatures, UV radiation, mechanical impacts, etc., making sure in this way, both a long durability and the maximum reduction of the downtime of the production lines.

The polyurethane-cement based **MAXURETHANE® CEM** systems are an example of the highest level of physical-chemical protection suitable for use on surfaces and pavements for the industry where very high performance and performance are required. In addition, the great versatility for the polyurethane-cement based systems allow selecting those products that meet the specifications of each facility, taking into account the exposure conditions and expected uses.



HYGIENIC FLOORING SYSTEM

MAXURETHANE® CEM systems are highly hygienic and healthy flooring systems, as they have silver salt additives that inhibit the growth of bacteria up to 99%, thus providing a hygienic surface with antibacterial activity according to the specifications of ISO 22196:2011 and JIS Z 2801:2000 standards.



SYSTEM ADVANTAGES

- FAST RETURN TO SERVICE**, minimizing downtime on production lines due to the high performance of the system, allowing its putting into service after 48 hours of curing.
- HIGH THERMAL RESISTANCE**, which, depending on the thickness of the coating, varies from -40°C to + 150°C.
- HIGH CHEMICAL RESISTANCE** to organic acids and solvents, providing greater resistance than other resin-based coating systems (tested for severe chemical attack according to EN 13529).
- HIGH MECHANICAL PROPERTIES** such as compressive strength, abrasion, impact and mechanical cleaning.
- Wide variety of finishes to provide adequate **SLIP RESISTANCE**.
- Suitable for areas subject to **STEAM CLEANING TREATMENT**, with the application thickness for the coating depending on the temperature.
- Allows applications on both substrates with certain **MOISTURE** and concretes with short curing times.
- Suitable for **VERTICAL SURFACES** in thicknesses up to 9 mm per layer.
- NON-FLAMMABLE, SOLVENT-FREE AND ODOUR-FREE**, suitable for poorly ventilated areas.

SURFACE PREPARATION

The success of both application and performance during the service life for the **MAXURETHANE® CEM** System is based on an adequate substrate preparation. Thus, treatments such as milling and/or shot blasting are essential, to which must be added; a) an exhaustive treatment of all the out-standing points (corners, passing pipes, drains, joints, ramps, etc.), and b) the provision of anchor grooves designed to achieve perfect adhesion of the system to the support.



POLYURETHANE-CEMENT FLOOR SCREEDS

(Smooth finish)

MAXURETHANE® CEM -L SYSTEM (Application thickness: 4-6 mm)

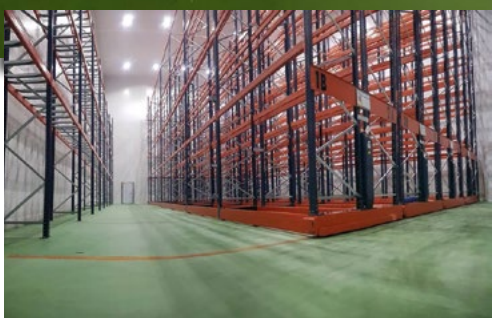
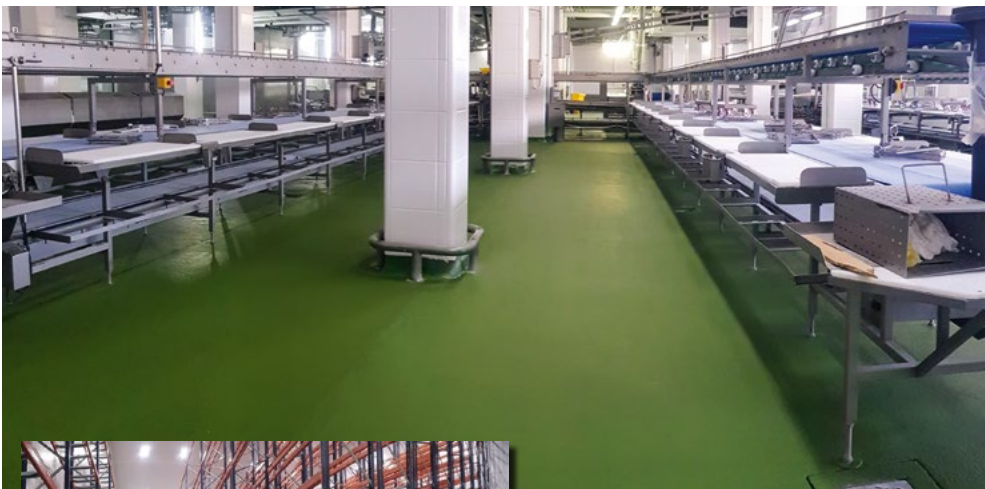
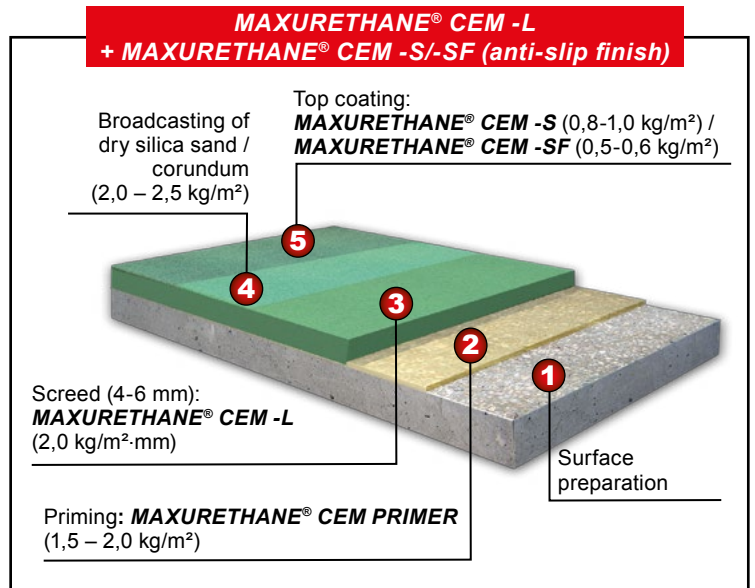
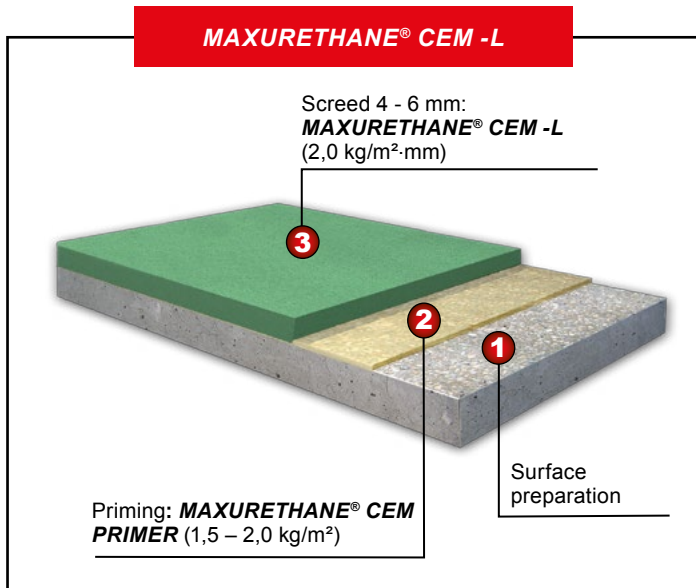
MAXURETHANE® CEM -L is a polyurethane-cement mortar with fluid consistency for covering floors subjected to both high mechanical and thermal loads, applicable in thicknesses from 4 to 6 mm, and suitable in a wide range of operating temperatures, i.e. from -30°C to 70°C.

Screed material and floor screeds. EN 13813 (CT - C50-F20-AR0,5)



- Processing and manufacturing rooms with wet and/or dry processes
- Cold rooms and freezers
- Storage rooms
- Food industry
- Distribution and logistics centres

Application Thickness	Operating Temperature Range
4 – 5 mm	-15 °C – 50°C
6 mm	-30 °C – 70°C



POLYURETHANE-CEMENT FLOOR SCREEDS (Anti-slip finish)

MAXURETHANE® CEM -F SYSTEM (Application thickness: 4-15 mm)

MAXURETHANE® CEM -F is a trowelable polyurethane-cement mortar for covering floors subjected to both very heavy mechanical and thermal loads, and spills of aggressive chemicals, applicable in thicknesses from 4 to 15 mm, and suitable in a wide range of extreme operating temperatures, i.e. from -40°C to 150°C.

Screed material and floor screeds. EN 13813 (CT-C50-F10-AR0,5)



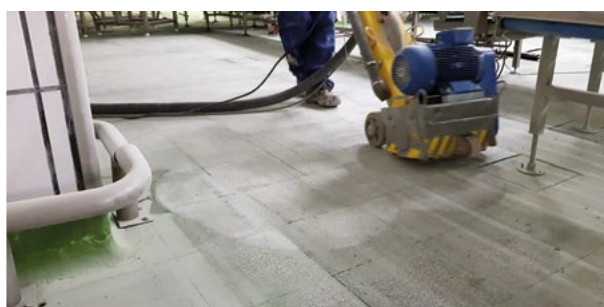
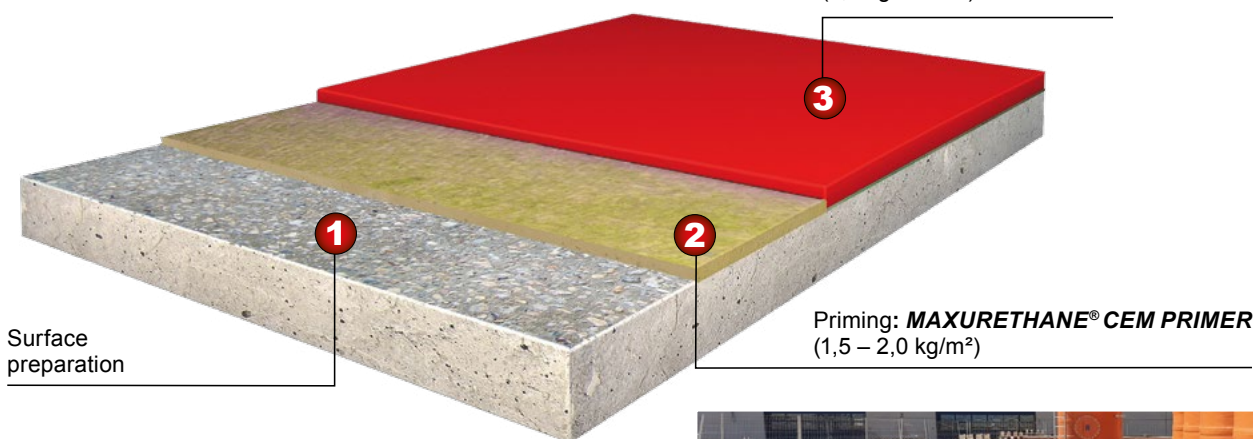
- Processing rooms subject to steam cleaning methods
- Rooms subject to high temperatures and steam
- Cold rooms and freezers (-40°C)
- Areas of chemical processing
- Chemical and pharmaceutical facilities

Application Thickness	Operating Temperature Range
4 – 6 mm	-15 °C – 60°C
6 – 9 mm	-25 °C – 70°C
9 – 12 mm	-40 °C – 120°C
12 – 15 mm	-40 °C – 130°C (occasionally up to 150 °C)

Clasificación frente al fuego de los revestimientos según la norma EN 13.501-1

PRODUCTO	Reacción al fuego
MAXURETHANE® CEM -F	B _{fl} s1

Screed (4– 5 mm):
MAXURETHANE® CEM -F
(2,0 kg/m²·mm)



PROTECTION AGAINST CHEMICALS FOR CONTAINMENTS AND TANKS

MAXURETHANE® CEM System is a very high chemical-resistant screed suitable for industrial facilities against cleaning agents, degreasing surfactants, fats, diluted alkalis and acids, hydrocarbons and other aggressive chemicals, and it has been tested for chemical resistance according to EN 13529 "Determination of resistance to severe chemical attack". Thus, the system allows to cover fields of application where other types of resin-based coatings are not suitable, that is, epoxy or polyurethane floor systems, namely:

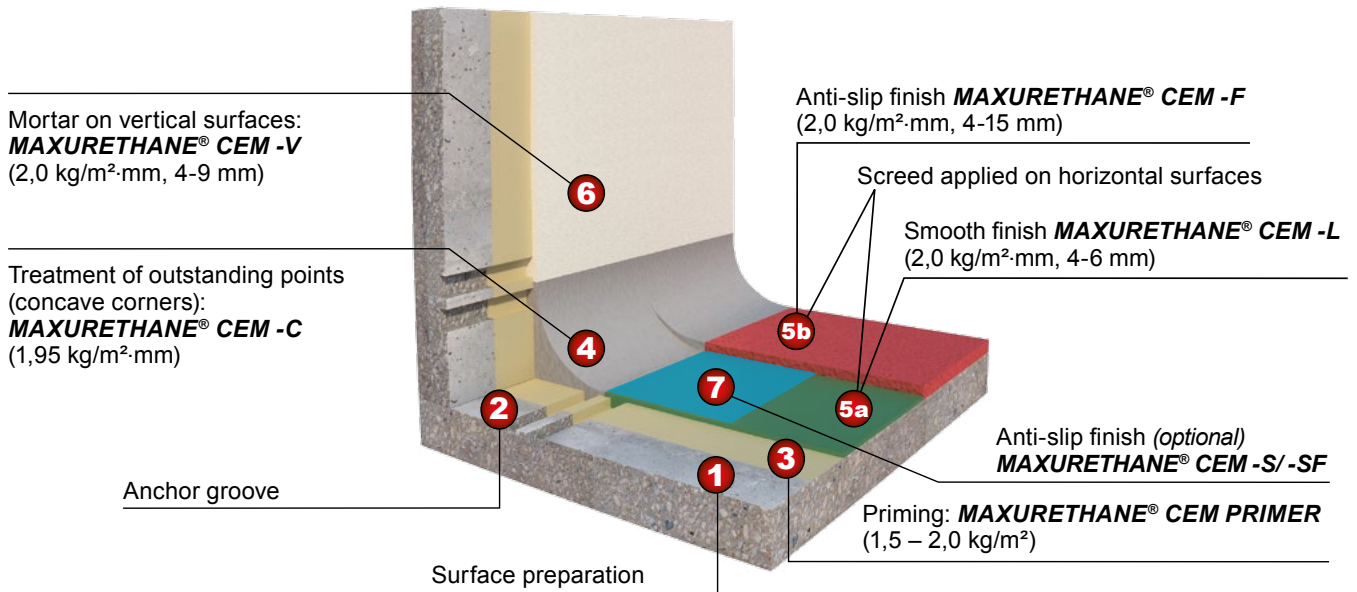
On the other hand, the PU-cement system presented, in addition to the products indicated above, is complemented by:

- **MAXURETHANE® CEM -V**: polyurethane-cement mortar suitable for vertical surfaces, applicable in thicknesses of up to 9 mm in a single layer.
- **MAXURETHANE CEM® -C**: polyurethane-cement mortar, specially designed for treatment of corners and others outstanding points.



APPLICATION FIELDS

- Chemical and pharmaceutical manufacturing
- Oil refining, mining, metal treatment, fertilizers, ...
- Chemical storage bunds and containment tanks
- Electrical transformer and battery rooms
- Loading and unloading areas for chemical agents
- Wet processing areas



	CHEMICAL RESISTANCE
HYDROCHLORIC ACID	★ ★ ★
SULFURIC ACID	★ ★ ★
ACETIC ACID	★ ★ ★
CITRIC ACID	★ ★ ★
LACTIC ACID	★ ★ ★
CAUSTIC SODA	★ ★ ★
HYDROGEN PEROXIDE	★ ★ ★
SODIUM HYPOCHLORITE	★ ★ ★
ETHYLENE GLYCOL	★ ★ ★
KEROSENE	★ ★ ★
METHANOL	★ ★ ★
XYLENE	★ ★ ★



***Consult the Technical Department for specific advice regarding the chemical resistance of the MAXURETHANE® CEM system**

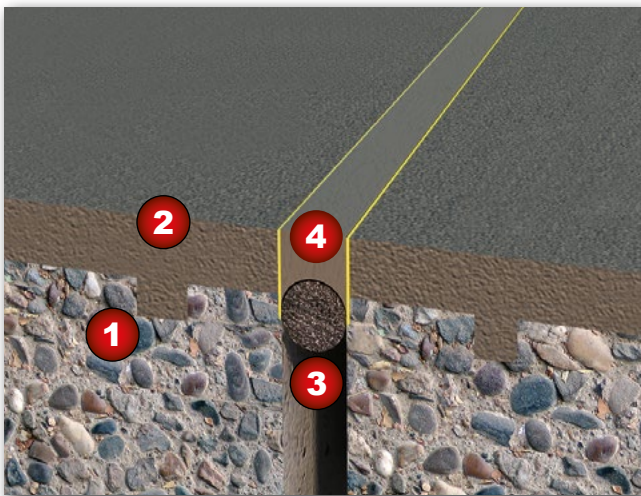
TREATMENT OF OUTSTANDING POINTS

The **MAXURETHANE® CEM** system requires a very careful preparation of surface because, in its initial stages of curing, the product leads a strong shrinkage. As a result, the system cannot be applied with thicknesses close to zero, and additionally requires the execution of the so-called anchor grooves around both the perimeter and all outstanding points that ensure correct behaviour and adherence of the system.

The anchor groove consists of a cut made into concrete substrate with a depth and width of about twice the thickness for **MAXURETHANE® CEM** mortar to be applied. The anchoring groove helps to distribute/control any mechanical and thermal stress resulting from both the shrinkage process during the curing and those stresses generated during the use of the pavement when it is subjected to high thermal impacts.

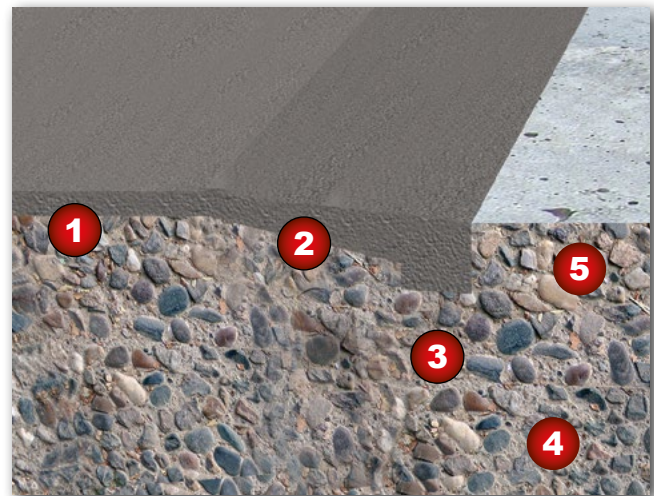


EXPANSION JOINTS



- 1 Repair mortar (edges joints): **MAXEPOX® REPAIR / MAXEPOX® MORTER / MAGROUT®**
- 2 Anchor groove into concrete substrate: **MAXURETHANE® CEM -F** or **MAXURETHANE® CEM -L**
- 3 Backing rod: **MAXCEL®**
- 4 Elastomeric sealant:
 - Polyurethane: **PRIMER® 1 & MAXFLEX® 800**
 - Polysulphide: **PRIMER® 900 & MAXFLEX® 900**

EDGE TO ORIGINAL LEVEL



- 1 **MAXURETHANE® CEM** system
- 2 Slope with screed material to existing pavement (about 30 cm)
- 3 Anchor groove into concrete substrate: **MAXURETHANE® CEM -F** (10 mm x 10 mm)
- 4 Initial support
- 5 Initial level for existing pavement



SYSTEM PRODUCTS

DESCRIPTION	CONSUMPTION	PACKAGING
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PRIMER

<p>MAXURETHANE® CEM PRIMER Three-component, polyurethane-cement primer for MAXURETHANE® CEM system</p>	1,50 – 2,00 kg/m ²	41,3 kg pre-weighed sets
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POLYURETHANE-CEMENT MORTARS

<p>MAXURETHANE® CEM -L High-performance, three-component, polyurethane-cement fluid screed mortar for horizontal surfaces (4-6 mm thick) with smooth texture. Available in 4 different colours</p>	2,0 kg/m ² ·mm	35,70 kg pre-weighed sets
<p>MAXURETHANE® CEM -F High-performance, three-component, polyurethane-cement trowelable screed mortar for horizontal surfaces (4-15 mm thick) with rough texture suitable for pavements subjected to both very heavy mechanical and thermal loads, and spills of aggressive chemicals. Available in 4 different colours</p>	2,0 kg/m ² ·mm	30,94 kg pre-weighed sets
<p>MAXURETHANE® CEM -V High-performance, three-component, polyurethane-cement trowelable mortar for vertical surfaces (3-10 mm). Available in 4 different colours</p>	2,0 kg/m ² ·mm	30,99 kg pre-weighed sets
<p>MAXURETHANE CEM -C High-performance, three-component, polyurethane-cement trowelable mortar for corners and outstanding points for MAXURETHANE® CEM system. Available in 4 different colours</p>	1,95 kg/m ² ·mm	30,92 kg pre-weighed sets

ANTI-SLIP POLYURETHANE-CEMENT TOP-COATING

<p>MAXURETHANE® CEM -S High-performance, three-component, polyurethane-cement coating for anti-slip sealing of MAXURETHANE® CEM -L. Available in 4 different colours</p>	0,80 – 1,00 kg/m ²	41,30 kg pre-weighed sets
<p>MAXURETHANE® CEM -SF High-performance, three-component, polyurethane-cement coating of fluid consistency for anti-slip sealing of MAXURETHANE® CEM -L. Available in 4 different colours</p>	0,50 – 0,60 kg/m ²	41,30 kg pre-weighed sets

ELASTOMERIC SEALANTS FOR JOINTS

<p>MAXFLEX® 800 Self-levelling, high modulus, one-component, polyurethane elastomeric sealant for horizontal joints subject to wheeled traffic</p>	100 ml/m per 10x10 mm joint	600 ml bags and 5 l cans
<p>MAXFLEX® 900 Low modulus, high chemical resistance, two-component, polysulphide-based elastomeric sealant for joints subject to permanent immersion. Available fluid version: MAXFLEX® 900 -F</p>	100 ml/m per 10x10 mm joint	2,5 l metal cans



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