TECNO MAGAZINE by TECNOPOL

WE PRESENT

THE NEW TECNOCOAT DRUM WITH A CENTRAL HOLE FOR A SCREW-IN AGITATOR

Case studie

AMUSEMENT PARK THEMING requires protection and versatility in finishes, which TECNOCOAT P-2049 provides

Primers

TECNOPOL PRIMER, DISCOVER MORE ABOUT OUR NEW RANGE OF PRIMERS. A practical guide to ensure that you always choose the right primer

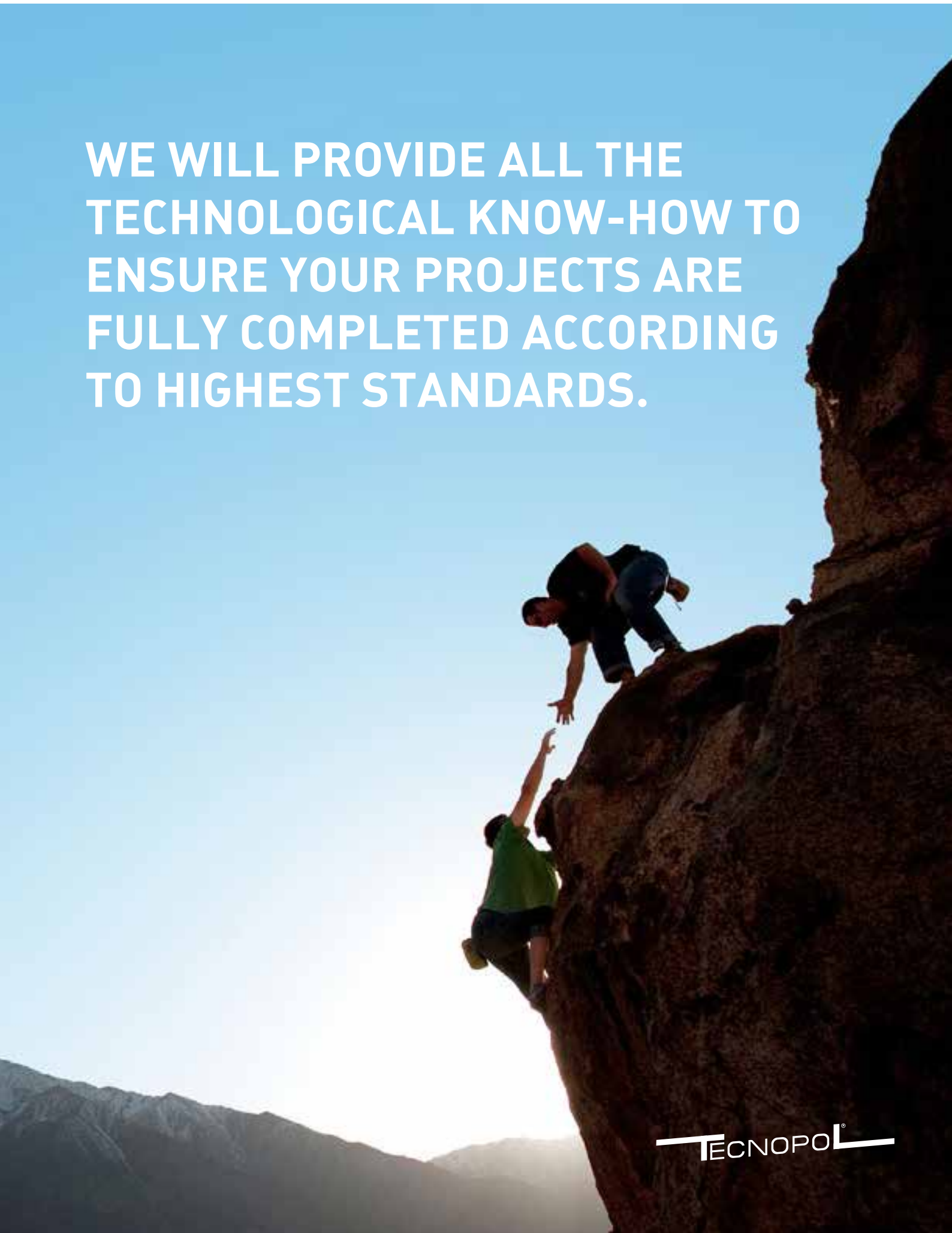
Tips

YOUR EQUIPMENT ALWAYS READY

Five practical tips to avoid surprises and breakdowns

Nº 3. July - September 2014

WE WILL PROVIDE ALL THE TECHNOLOGICAL KNOW-HOW TO ENSURE YOUR PROJECTS ARE FULLY COMPLETED ACCORDING TO HIGHEST STANDARDS.

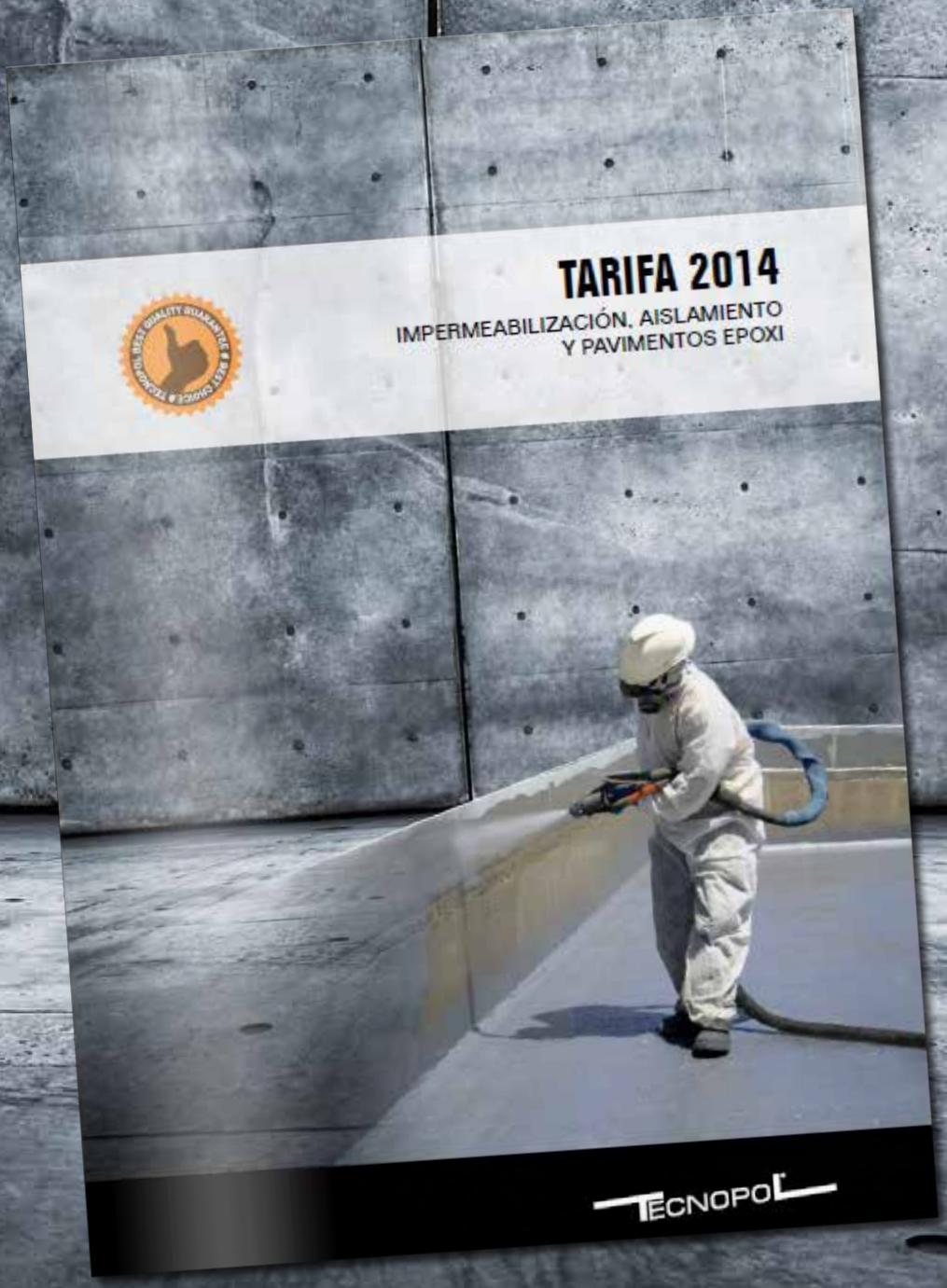


SUMMARY

TECNOPOL SISTEMAS, S.L.

c/Premsa, 5 · Pol. Ind. Z
CP: 08150 · Parets del Vallès · Barcelona (Spain)
Telf. (+34) 93 568 21 11 · Fax. (+34) 93 568 02 11
e-mail: info@tecnopol.es · **www.tecnopol.es**

OUR PRICE LIST FOR 2014
IS AVAILABLE ON THE WEBSITE
REQUEST IT



THE NEW TECNOCOAT DRUM TO FACILITATE THE PREPARATION OF POLYUREA

WE PRESENT THE NEW TECNOCOAT DRUM WITH A HOLE FOR A SCREW-IN MIXER

PRESENTATION

We continue to innovate and search for differentiating solutions to make our customers' day to day operations easier and guarantee the quality of their work. With this in mind we have developed the new TECNOCOAT drum, which incorporates a central hole in the top designed to house a screw-in agitator that ensures product homogeneity and, therefore, the quality of the membrane applied.

We have been distributing our range of polyurea products in this new container since 1 June.

TWISTORK AIR-DRIVEN HELIX MIXER

SCREW-IN MIXER

To enable you to take advantage of the benefits of the new TECNOCOAT, drum, we place at your disposal a GRACO Twistork 308175S Helix Mixer (air-driven) at a very special discount.

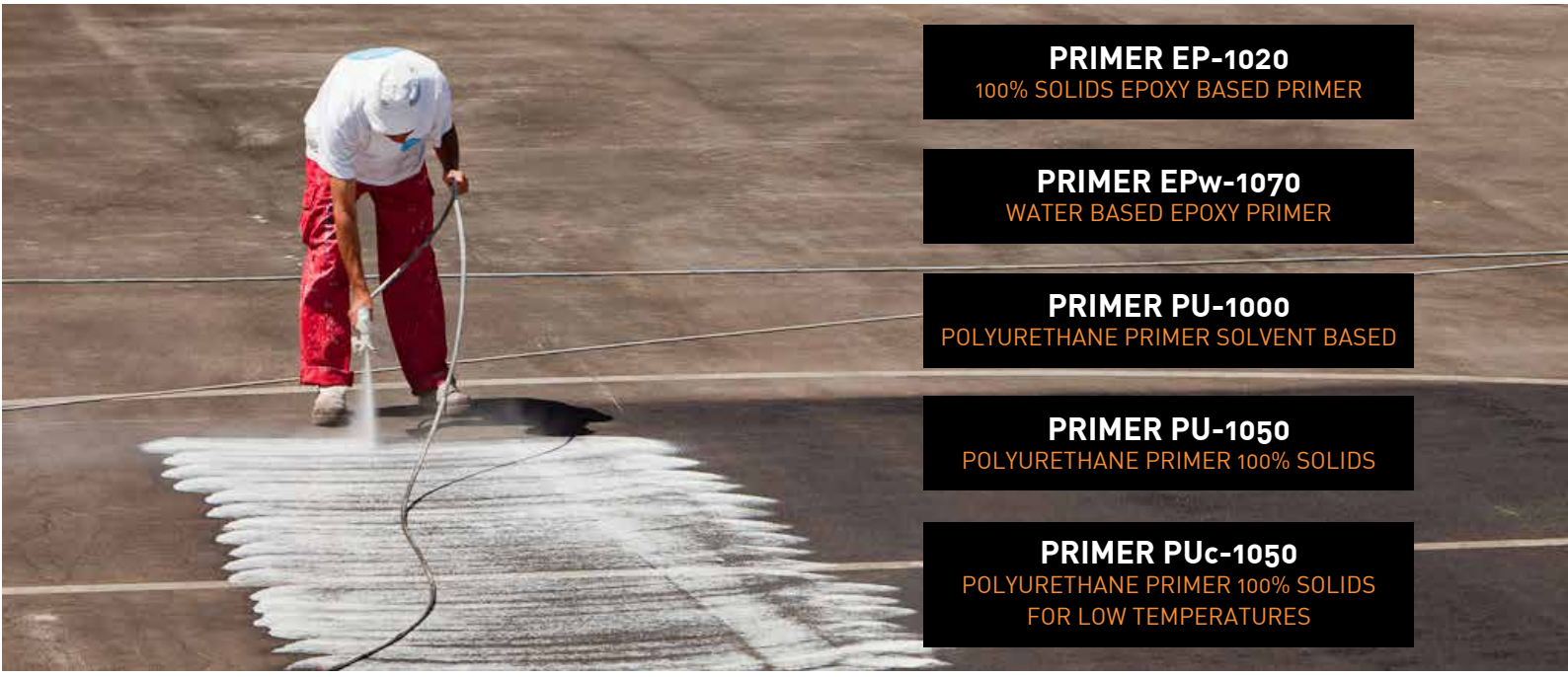
To take advantage of this special offer, call us on **(+34) 93 568 21 11**.

TECHNICAL SPECIFICATIONS OF THE MIXER

SPECIFICATIONS	RESULTS
Maximum operating pressure	7 bar
Maximum recommended agitator speed	800 rpm
Air consumption at 800 rpm with an air input pressure of 7 bar	0,14 m^3/min.
Air consumption at 400 rpm with an air input pressure of 7 bar	0,06 m^3/min.
Weight	8 kg

TECNOPOL PRIMER, DISCOVER MORE ABOUT OUR RANGE OF PRIMERS

A practical guide to ensure that you always choose the right primer



We are sure that it would no surprise you to hear us say that every project is different. The characteristics of each project are determined by the type of substrate to be treated, as well as its state, prevailing climate conditions (temperature and humidity) and the system to be used.

Based on our experience we can affirm that one of the most important steps to guarantee the system's success is the primer, both in terms of choosing the right product and as regards its application. Carrying out this step correctly guarantees the success of the job and avoids the setbacks and problems that could arise in the future.

PRIMER APPLICATION is one of the most important steps to ensure successful waterproofing

At the moment we have a range of 5 different kinds of primers that cover the wide range of substrates and conditions that you may have to deal with in your projects.

The following comparative table shows the main characteristics of our primers:

	PRIMER EP-1020	PRIMER EPw-1070	PRIMER PU-1000	PRIMER PU-1050	PRIMER PUc-1050
Type	100% SOLIDS EPOXY	WATER-BASED EPOXY	SOLVENT-BASED POLYURETHANE	100% SOLIDS POLYURETHANE	Low temperature 100% SOLIDS POLYURETHANE
Density	1.050 kg/m^3	1.000 kg/m^3	1.110 kg/m^3	1.110 kg/m^3	1.110 kg/m^3
Adherence to concrete	> 2 MPa	> 2 MPa	> 2 MPa	> 2 MPa	> 2 MPa
Maximum substrate humidity	4%	8%	5%	5%	5%
Pot life	50 min (23ºC)	60 - 90 min (23ºC)	--	35 - 50 min (23ºC)	35 - 50 min (15ºC)
Time to touch dry	+/- 5 hours (23ºC)	+/- 5 hours (23ºC)	+/- 1 hours (23ºC)	+/- 2 hours (23ºC)	+/- 2 hours (15ºC)
Re-application time	24 hours (23ºC)	24 hours (23ºC)	24 hours (23ºC)	24 hours (23ºC)	24 hours (15ºC)
Use temperature	10 ~ 30 ºC	5 ~ 35 ºC	5 ~ 30 ºC	5 ~ 35 ºC	5 ~ 15 ºC
Dilution	NO	Water (max. 20%)	DESMOPOL SOLVENT (5 ~10%)	NO	NO

* Data obtained in laboratory; these specifications may vary depending on the ambient conditions and the substrate.

THE RIGHT CHOICE

THE **DESMOPOL** POLYURETHANE AND **TECNOCOAT** PURE POLYUREA SYSTEMS

All you have to do is establish the type of substrate to be treated. We differentiate between "porous substrates" and "non-porous substrates". In the case of porous substrates in cold environments, priming with **PRIMER PUc-1050** is recommended as it is specific for this type of application. In some cases we can use the **PIMER EPw-1070** as a vapor barrier with a consumption next to 1 kg/m^2 .

SUBSTRATE	TEMPERATURE	PRIMER
POROUS (concrete, cement, etc.)	5-35ºC	PRIMER PU-1050 PRIMER EPw-1070 PRIMER PU-1000*
	5 -15ºC	PRIMER PUc-1050
NON-POROUS (metal, ceramic, laminate, asphalt, wood, etc.)	3 - 35 ºc	PRIMER EPw-1070

* Use only in DESMOPOL systems

THE **TECNOFLOOR** EPOXY PAINTS SYSTEM

In the case of epoxy paint based systems, it all depends on the **TECNOFLOOR** products used.

FINISHING PRODUCT	SUBSTRATE	PRIMER
TECNOFLOOR Tw-3040 Water-based epoxy coating	ANY	PRIMER EPw-1070
TECNOFLOOR T-3020 100% solids epoxy coating	POROUS	PRIMER EP-1020
	NON-POROUS	PRIMER EPw-1070

CORRECT APPLICATION

The steps described below are for guidance purposes only; to ensure correct application we suggest you read carefully the technical specifications for the product, available on our web page.

1. Prepare the substrate correctly, in accordance with the procedures indicated in the technical specifications.

2. Mix the two components using a mechanical agitator for approximately 2 minutes.

3. Apply one or several coats using a roller or suitable airless equipment until the required thickness is achieved. Wait until touch dry between each coat and do not exceed, in any case, the maximum re-application time. If this time is exceeded, the substrate preparation must be repeated and the process started again.

4. Wait until the drying time has elapsed before continuing to apply the chosen system.

EXCELLENT REPAIR CEMENT

In most cases when preparing concrete, it is necessary to fill in unevenness and holes.

A "trick" to achieve an excellent and extremely hard repair cement without using any water in the mixture, which avoids retraction and makes it really quick drying, is to mix **1 part of PRIMER EP-1020 resin with three parts of calcium carbonate CaCO3.**

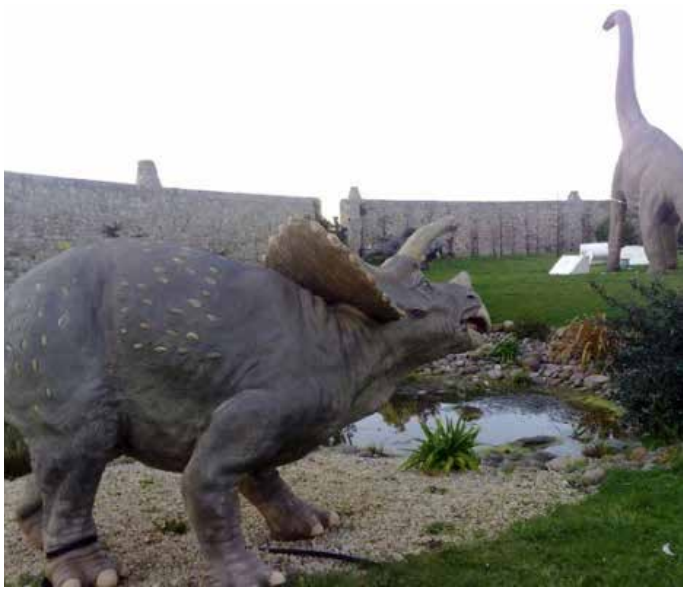
A PRACTICAL CASE

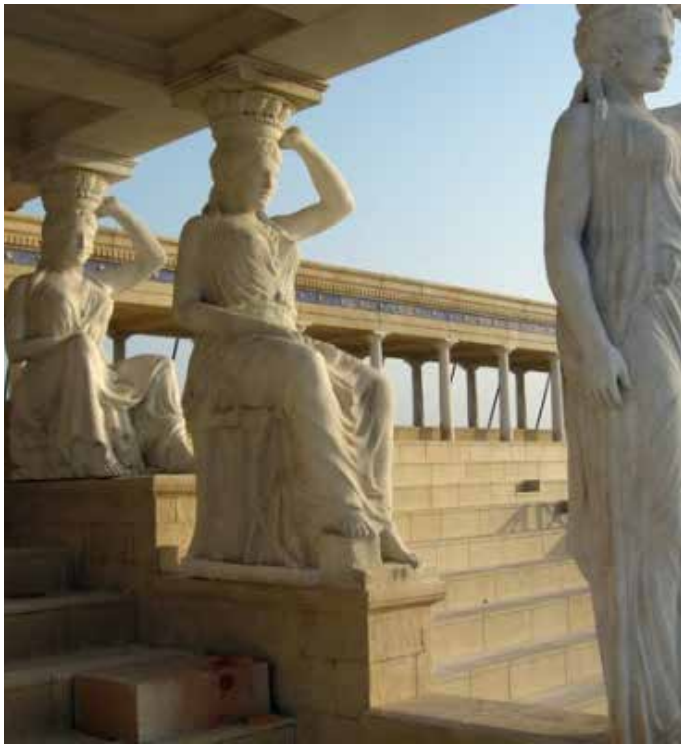
AMUSEMENT PARK THEMING REQUIRES PROTECTION AND VERSATILITY IN FINISHES, WHICH **TECNOCOAT P-2049** PROVIDES.

By now, you are almost certainly aware of the benefits of **TECNOCOAT P-2049** pure polyurea when used as a waterproofing membrane, but you may not have thought about its infinite protective properties when used as a covering and coating on all kinds of surfaces.

TECNOCOAT P-2049 polyurea adapts to any shape, adhering completely to the entire surface of the element to be protected. Additionally, the diversity of possible finishes makes it possible to characterise all the elements that comprise the decor.

For this reason they are used to set the theme for the attractions, stages and spaces in theme parks. This practical case shows the different elements with diverse shapes and sizes, made from expanded polystyrene that have been protected with polyurea, making them hard-wearing and protecting them from the weather, thus guaranteeing their conservation in the future.





A REPLICA OF THE "ÀGUILES DE POLLENÇA" MADE FROM PÓLYUREA AND FIBRE GLASS

In the Majorcan village of Pollença, the religious festival known as the Ball de les Àguiles is held every year, in which two you women dance, dressed in white and bejewelled in the Baroque style with gold provided by the families from the village for the occasion.

At their waist they have cardboard eagle with a crown from which numerous multicoloured ribbons hang, enhancing their movements. The original eagles are now over 100 years old and, therefore, exact replicas were made recently from fibre glass and polyurea.

The finishes were completed with mastic and different coloured paints that faithfully recreate the polychromic features of the original figures.

The result is an exact replica, although much lighter, thanks to the lightness of the new materials used.

TIPS

YOUR EQUIPMENT ALWAYS READY

Five practical tips to avoid surprises and breakdowns

If you have ever had an application equipment breakdown, you will know how annoying it is to have it out of service for several days, apart from the financial loss this means. Minimising the risk of breakdown is easy if you follow these simple and practical maintenance tips:

1. Clean the chamber daily using the bits supplied with the gun and lubricate it to prevent the two components curing. Keep the fluid conduits clean to prevent internal crystallisation. Apply lubrication through the upper opening of the gun whilst at the same time driving air through the interior until a spray of lubricant comes out the nozzle. Dismantle the gun every week to clean and lubricate it fully.

2. When not in use, it is essential to use the equipment's recirculation function (IMPORTANT: Carry out recirculation throughout the entire circuit, including the hoses), or even better, spray on a disposable surface to ensure that the product does not cure inside.

3. If the equipment is not going to be used for more than 10 days (approximately) it is advisable to flush out the interior with **GUN CLEANER** solvent. This solvent prevents the components from curing and hardening. Subsequently, carry out the same operation with **PUMP LUBE** oil, leaving it in the circuit to keep the equipment lubricated until the next use.

4. From time to time, check the level of the **PUMP LUBE** lubricant reservoir in the machine, as well as the state of the lubricant and replace it if it has lost fluidity.

5. If it is too late and the fluids have hardened and blocked the machine, clean using mechanical methods and **GUN CLEANER 2** solvent.

SERVICING AND TUNING

To ensure correct operation of your spray equipment and prevent expensive repairs, it is advisable to have it professionally serviced from time to time.

We have Associated Technical Services in **Belgium, France and Spain**. Contact us for more information

(+34) 93 568 21 11

RANGE

DO YOU KNOW THE ENTIRE TECNOPOL RANGE?

Since 1996 we have been immersed in a continuous process of research and development of new highly technological products and systems. We adapt to the times and the needs of the sector - the use of TECNOPOL products guarantees the best results for your projects.

POLYUREA MEMBRANE

TECNOCOAT P-2049
Membrane 100% pure polyurea

TECNOCOAT P-2049 LV
Membrane 100% pure polyurea low viscosity

TECNOCOAT P-2049 EL
Membrane 100% pure polyurea stretchable (↑600%)

TECNOCOAT CP-2049
Cold polyurea membrane

POLYURETHANE MEMBRANE

DESMOPOL
Polyurethane membrane

DESMOPOL T
Transparent polyurethane membrane

SETIPOL
Acrylic waterproofing

INDUSTRIAL FLOORING

TECNOFLOOR T-3020
100% solids epoxy coating

TECNOFLOOR T-3020 AS
Antistatic 100% solids epoxy coating

TECNOFLOOR TW-3040
Water based epoxy coating

FOAM OF PROJECTION POLYURETHANE

TECNOFOAM G-2008
Polyurethane foam density 8 kg/m^3

TECNOFOAM G-2048
Polyurethane foam density 33 kg/m^3

TECNOFOAM G-2040
Polyurethane foam density 40 kg/m^3

TECNOFOAM G-2050
Polyurethane foam density 50 kg/m^3

TECNOFOAM S-401
Polyurethane foam density 40 kg/m^3. Fire reaction M1.

FOAM OF POLYURETHANE OF INJECTION

TECNOFOAM I-2008
Polyurethane foam density 10 - 15 kg/m^3

TECNOFOAM I-2035
Polyurethane foam density 35 - 40 kg/m^3

PRIMER

PRIMER EP-1020
100% solids epoxy based primer

PRIMER EPW-1070
Water based epoxy primer

PRIMER PU-1000
Polyurethane primer solvent based

PRIMER PU-1050
Polyurethane primer 100% solids

PRIMER PUC-1050
Polyurethane primer 100% solids for low temperatures

PROTECTIVE COATINGS

TECNOTOP 2C
Aliphatic polyurethane resin

TECNOTOP 2CP
Aliphatic polyurethane resin suitable for full immersion

PREPARATION

DESMOSEAL MASILLA-PU
Mono-component polyurethane mastic

L50
Mesh for reinforcing of waterproofing membranes

TECNOBAND 100
Support band

AUTONOMOUS EQUIPMENT OF PROJECTION OF FOAM OF POLYURETHANE

HANDI FOAM
Polyurethane foam projection kit: density 28 kg/m^3

ADDITIVE

DESMOPOL ACELERADOR
DESMOPOL membrane Accelerant

DESMOPOL SOLVENT
Special solvent for DESMOPOL membrane

PIGMENTOS
Special ink for TECNOTOP varnishes range

TIXOPOL L
Thixotropic additive for Desmopol membrane

TIXOPOL S
Thixotropic additive for systems TECNOFLOOR-T-3020, TECNOCOAT CP-2049, PRIMER EP-1020 and PRIMER PU-1050

CHARGES

ARENA DE SILICE
Antislip finishes

QUARTZ COLOR
Decorative antislip finishing

TECNOPLASTIC C
Industrial antislip finishing

TECNOPLASTIC F
Decorative antislip finishing

DESCRIPTIONS AND DATA SHEETS IN WWW.TECNOPOL.ES

DATA

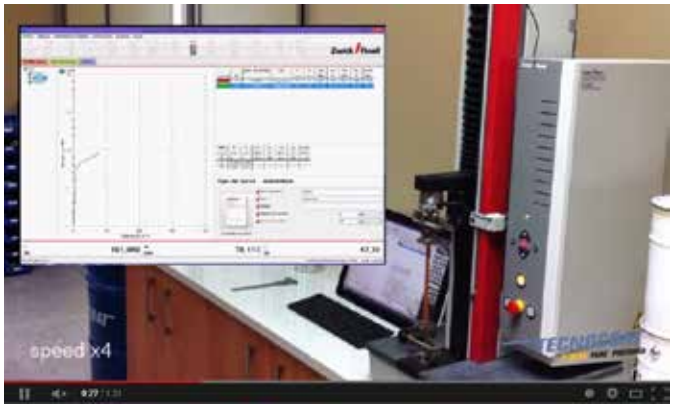
COMPARISON: TENSILE STRENGTH TEST

A tensile strength test is one that demonstrates the properties of a material when subjected to traction forces. The aim is to establish the break point and the main mechanical properties of the material. In the field of waterproofing, knowing the properties of each product helps to establish their capacity to support the structural forces of the substrates to which they are applied.

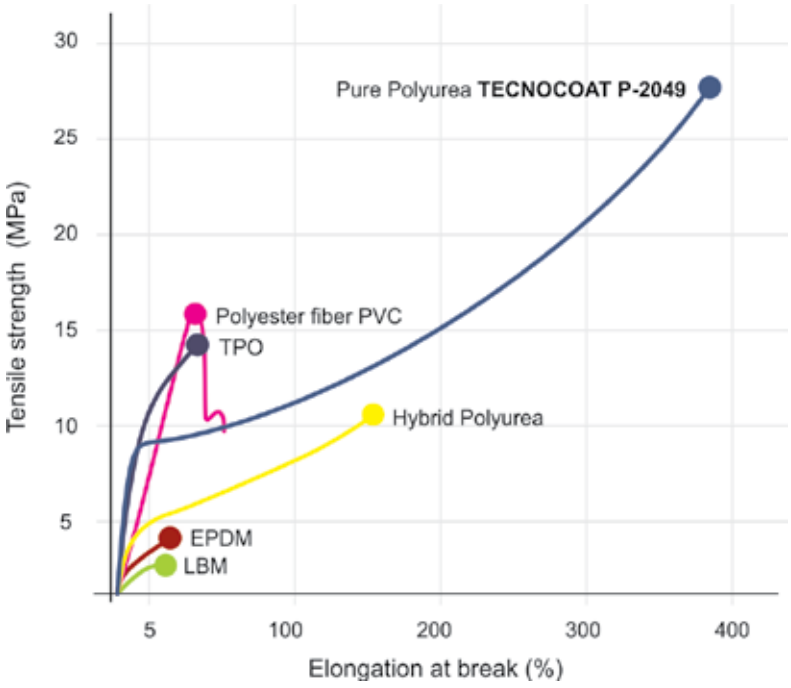
The following is a brief comparison of TECNOCOAT with some of the other materials currently used for waterproofing:

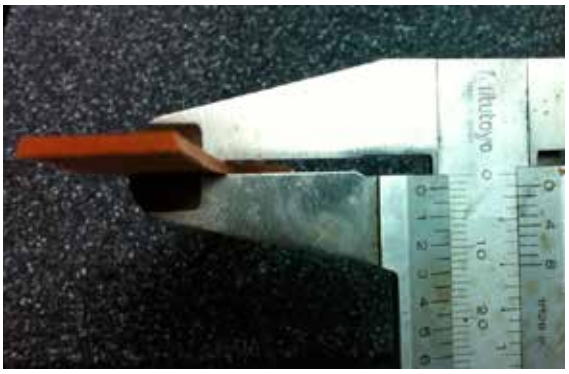
Would you like to see how we carried out the test?
VISIT OUR CHANNEL ON YOUTUBE

www.youtube.com/Tecnopoles



	Sample		Elongation at break (%)	Tensile strength (MPa)
	Length (mm.)	Thickness (mm.)		
Pure Polyurea TECNOCOAT P-2049	10	1,2	**370**	**27,2**
Polyester fiber PVC	10	1,2	26	16,4
TPO	10	1,4	26	14,9
Hybrid Polyurea	10	1,8	150	11,4
EPDM	10	2,8	16	4,41
LBM	10	3,8	13	2,54





TECNOCOAT P-2049 sample used in the test

TECHNOLOGY

HYGROMETERS, THE MOST EFFICIENT WAY OF MEASURING SUBSTRATE HUMIDITY

A hygrometer or hydrograph is an instrument used in our sector to detect humidity present in materials. This datum is important, as no system can be properly applied when substrate humidity exceeds 8%.

All hygrometers indicate the humidity content as a percentage (%), whether analogically or digitally.

Hygrometers come calibrated for specific materials and, therefore, to use them on other materials it is necessary to know the equivalence.

TYPES OF HYGROMETER

There are hygrometers with or without pins. The former have two pins that are inserted to the desired depth in the substrate to be analysed. Hygrometers without pins (or non-invasive) operate on the principle of electrical impedance. There are also hygrometers on the market that combine both of the aforementioned types in a single apparatus.

All are perfectly valid to measure substrate humidity, although, naturally, it should be noted that all of them do have a margin of error.

WEB + APP

YAHOO! WEATHER PLANNING BASED ON THE WEATHER FORECAST

Working outdoors and with materials that are sensitive to humidity means that we are constantly watching the weather forecasts. Today there are a multitude of means to find out, with precision, what the weather will be like tomorrow, and even in a week's time.

We have seen a multiplatform service that we think is quite reliable, easy to use and attractive. Yahoo! Weather.

Apart from a web page, Yahoo! Weather is an free app that can be installed in a smartphone to be used whenever and wherever. It has an interface with spectacular graphics and it is quite precise. It is also possible to obtain a 10-day forecast although, logically, the further the scope of the forecast is, the less precise it will be.

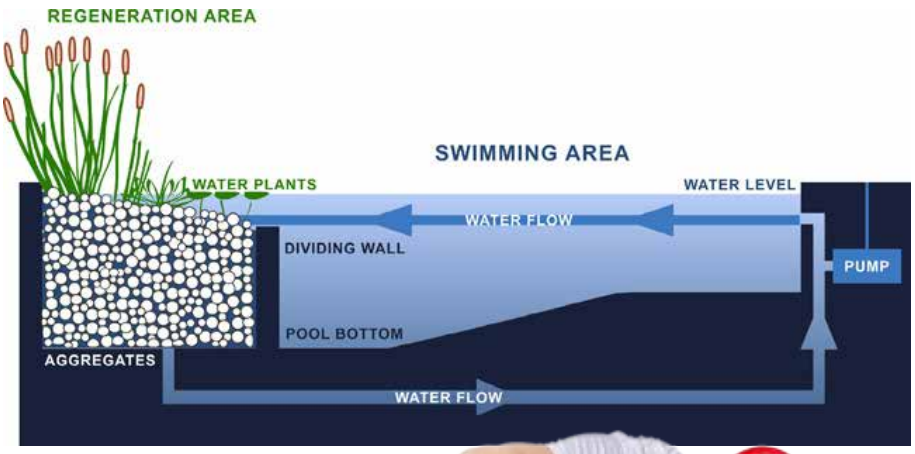
ECO NEWS

ECOLOGICAL SWIMMING POOLS WITH NATURAL FILTERING, SAVINGS AND LANDSCAPE INTEGRATION

A conventional swimming pool presents significant costs in maintenance, water, electricity and chemical treatments. If you are thinking of updating your old pool, or of building a new one in your garden, you should know that there is an alternative that is much more efficient and environmentally friendly: swimming pools with natural filtering.

These pools seek to imitate the filtering and oxygenation process of the waters found in the wild. Filtering is carried out through a bed of earth and stones, where the vegetation that purifies the water grows. A small pump drives the water through this natural filter, preventing the development of phytoplankton. Water oxygenation is carried out naturally within the same circuit.

The result is a swimming pool completely integrated in the environment, without any harmful chemicals in contact with the skin and in which one can open one's eyes underwater with no worries.



WE WOULD LIKE TO BE YOUR TECHNICAL ADVISOR!!

We are inaugurating a new section with which we seek to help or provide solutions for any queries our readers may have.

If you are not sure how to apply a product, how to deal with a specific aspect, how to prepare a substrate, what **TECNOPOL** best suits your needs, etc., send us your query and we will answer you as quickly as possible. We are looking to provide a speedy and efficient service.

Furthermore, we will publish the queries we think hold the greatest interest, together with the answer, in the following number of **TECNONEWS**.

SEND YOUR QUESTIONS! news@tecnopol.es

www.tecnopolgroup.com

TECNO MAGAZINE by TECNOPOL

TECNOPOL SISTEMAS, S.L.

c/Premsa, 5 · Pol. Ind. Z
CP: 08150 · Parets del Vallès · Barcelona (Spain)
Telf. (+34) 93 568 21 11 · Fax. (+34) 93 568 02 11
e-mail: info@tecnopol.es · **www.tecnopolgroup.com**

@tecnopol_stms