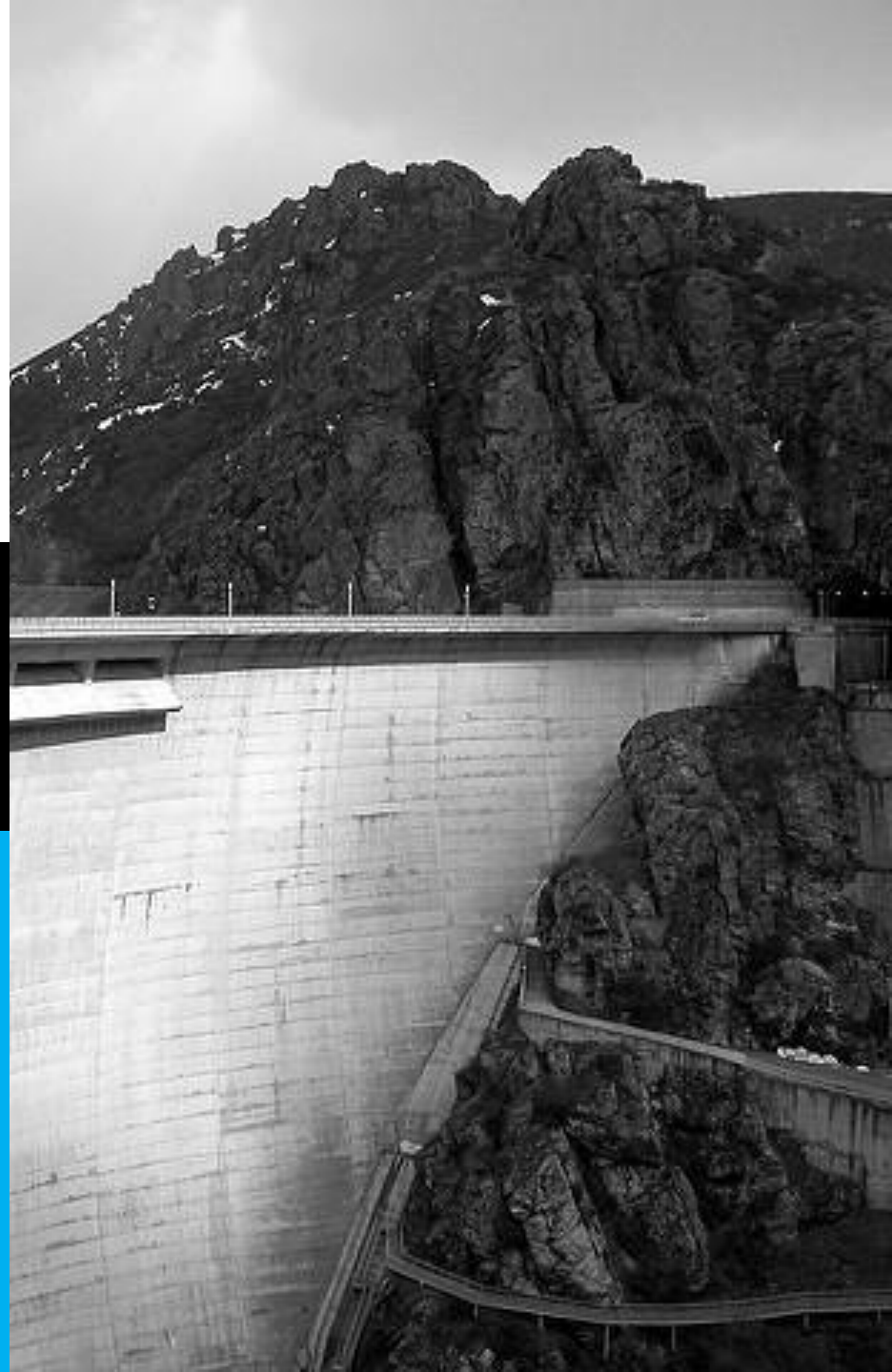




MICROVAL

***SUSTAINABLE MICROCEMENTS
WITH PERSONALIZED ADVICE***





WHAT IS MICROVAL?

MicroVal is the microcements range of Cement International Technologies.

They are composed of clinker Portland and steel slag addition that provide sulfo-resistant features. This results in a much better performance than other microcements that can be currently found on the market.

Its particle size and composition make these cements exceptional and unique products in waterproofing applications by injections because they ensure high durability in harsh environments because of water and sulfates presence.

The range MicroVal:
the best solution for
every need.

APLICACIONES

- Consolidation of rock.
- Soil stabilization.
- Filling cracks without losing the monolithic character of the structure.
- Consolidation of foundations and land.
- Waterproofing of solid and tunnels.
- Reparation of concrete exposed to aggressive agents and marine environments.
- Underground work.
- Construction and rehabilitation of bridges, dams, aqueducts, monuments, etc.
- Specific applications in petrochemical plants



MICROVAL: SUSTAINABLE MICROCEMENT

Cement International Technologies undertakes the challenge of developing high performance products and added value for our customers. Strong technological products associated with a personalized advice.

This means an important advance in the development of intelligent materials, which are able to adapt to any situation and superiors to the existing materials properties; products that prioritize elements as energy efficiency, global emissions reduction, quality of life improvement, buildings and infrastructures unlimited durability and natural resources saving. A commitment to innovation and sustainability becomes an element of competitiveness in the market.

MicroVal is the result of a continuous innovation of the R + D + i, Commercial Technical Support and Operations Departments.

NEW PRODUCTS WITH SPECIAL FEATURES

Special grinding methods are used in the manufacture of such binders. Thanks to it, very fine particles of uniform diameters and rounded shapes are achieved.

These features allow a greater penetration in the grounds, a more complete filling of cracks and / or developing special and better concretes than those achieved with other microcements.

MicroVal becomes the best solution when you need to improve waterproofing and consolidation of land.

Moreover, due to their rheological properties in fresh, MicroVal slurries have a high stability with no separation, so the pasta, once hardened, has an improved performance and more homogeneous.

ADVANTAGES

- Allows the development of extra fluidized slurries.
- Compatible with already treated lands.
- Resistant to lands and aggressive agents.
- More environmentally friendly and less CO₂ emissions.
- Spanish Manufacturing with numerous outlets nationwide.
- Availability of technical equipment for personal advice.



MicroVal TP-32

It is a solution for constructions and applications with permeability problems. It is the most economical option of microcements, and its application can be supplemented by TP-12 injections.



Rheological and mechanical properties of the slurries

TP - 3 2

C/A	Slurry density	Fluidity ¹ (Marsh cone) (sec.)	Decantation at 3 hours (%) ²	Compressive strength (Mpa)
0,65	1,34	38	3	2,5
1,25	1,55	40	3	6,5
2,50	1,89	55	0	10,0

Tests with 4% additive CPV

¹ Reference value water 34 sec.

² In 1 L test-tube

MicroVal TP-12

A superior performance product to TP-32 because of the size of its particles which are lower than 12 microns. It is suitable for applications in which ground impregnation or filling of small cracks are required.



Rheological and mechanical properties of the slurries

TP - 12

C/A	Slurry density	Fluidity ¹ (Marsh cone) (sec.)	Decantation at 3 hours (%) ²	Compressive strength (Mpa)
0,33	1,21	35	7	9,0
0,53	1,29	37	2	11,5
1,00	1,50	40	2	15,5

Tests with 4% additive CPV

¹ Reference value water 34 sec.

² In 1 L test-tube

MicroVal TP-6

It is a solution specifically designed for critical features applications. Its particles lower than 6 microns make it the ideal product when the TP-12 is not enough.



Rheological and mechanical properties of the slurries

TP - 6

C/A	Slurry density	Fluidity ¹ (Marsh cone) (sec.)	Decantation at 3 hours (%) ²	Compressive strength (Mpa)
0,30	1,18	35	4	8,0
0,52	1,29	38	2	12,0
0,66	1,36	40	2	15,0

Tests with 4% additive CPV

¹ Reference value water 34 sec.

² In 1 L test-tube



MicroVal is certified
with the European
CE label and it emits
less CO₂ than other
cements.

SPANISH TECHNOLOGY, CLOSE TO THE CUSTOMER

MicroVal is produced in Spain. This allows us to make the requested deliveries at the time, without breakage of stock and even producing it on demand.

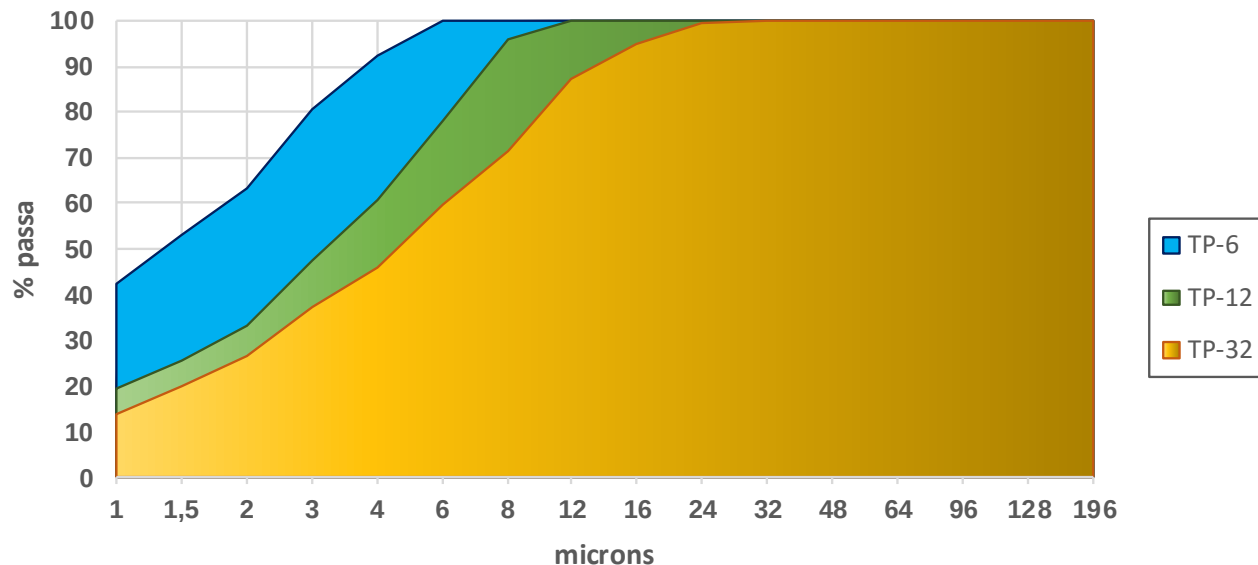
It has a logistic support by Cement International Technologies, and the experience and knowledge of the industry leader.

This closeness and immediacy allow us to offer expert advice and tailored to each use or necessary product preparation.

FEATURES

COMPONENTS (Referrals to the core of cement)	TP-32	TP-12	TP-6
Clinker (%)	20	20	20
Slag (S) (%)	80	80	80
Setting gypsum regulator	3	3	3
CHEMICAL	TP-32	TP-12	TP-6
Sulfur trioxide (SO ₃) (%)	2,1	3,1	1,6
Chlorides (Cl ⁻) (%)	0,03	0,03	0,03
Loss on calcination (%)	1	1	0,1
Insoluble waste (%)	0,3	0,3	0,3
PHYSICAL	TP-32	TP-12	TP-6
BLAINE (cm ² /g)	9.000	11.500	15.000

GRANULOMETRIC CURVES





www.cemintech.com
sales@cemintech.com

MICROVAL REACHES WHERE OTHERS FAIL