Idrobeton, Microsilbeton e Waterproofbeton®

Waterproof concretes for corrosive environments
Concretes with guaranteed performance
Compliant with standards UNI EN 206 and UNI 11104

IDROBETON W

Special concrete with water-repellent admixtures
and minimum C30/37 compressive strength

- **Idrobeton W** is a **calcestruzzo speciale confezionato con additivi idrofughi** which give the mix a reduced capacity to absorb water, making it particularly suitable for underground masonry affected by contact with water in the ground, resulting from poor management of rainwater. The reduced water absorption of **Idrobeton W** compared to concrete with the same water/cement ratio means that it can also be used for masonry located, albeit only a few metres, below groundwater level.

  Permeability at 28 days, penetration of water under pressure (5 atm) in accord with UNI 12390-8: 20 mm.

MICROSILBETON

Special concrete with active mineral additives
and minimum C30/37 compressive strength

- **Microsilbeton** is a special cement mix made from microsilica particles with very high pozzolanic activity. Thanks to the low water/binder ratio, the use of high-rate water-reducing admixtures and the pozzolanic material, the microscopic structure of the concrete has a reduced capillary pore size. This degree of **impermeability** makes it possible for swimming pools and tanks to be built without the need for any additional waterproofing treatment, resulting in lower construction costs.

  Permeability at 28 days, penetration of water under pressure (5 atm) in accord with UNI 12390-8: 10 mm.

WATERPROOFBETON

Special concrete with waterproofing agents and active mineral additives and minimum C32/40 compressive strength.

- **Waterproofbeton** is a de facto 'waterproof' **concrete**, which can be used for the construction of structures in contact with wastewater or water containing corrosive chemicals.

- When used in concrete tanks that have been carefully designed to take into account cracks caused by thermal and hygrometric variations (white tanks) **Waterproofbeton**, thanks to its **impermeability**, guarantees that the tanks are perfectly watertight, preventing polluting water from contaminating the water table or the surrounding land.

The following table can help to define the characteristics of the waterproof concrete that should be included in the specifications.

DEFINITION (AND ORDER)	STRENGTH CLASS	CONSISTENCY CLASS	EXPOSURE CLASS	MAXIMUM DIAMETER	DEPTH OF PENETRATION OF WATER UNDER PRESSURE
IDROBETON W	from C30/37	from S4 to S5	XC, XD, XA, XF	16, 32	<20 mm (UNI EN 12390-8)
MICROSILBETON	from C30/37	from S4 to S5	XC, XD, XA, XF	16, 32	<10 mm (UNI EN 12390-8)
WATERPROOFBETON	from C32/40	from S4 to S5	XC, XD, XA, XF	16, 32	<5 mm (UNI EN 12390-8)

PHYSICAL AND MECHANICAL CHARACTERISTICS		
IDROBETON W	Normal strength	C30/37
	Standard hygrometric shrinkage with R.H. 50% after 3 months	500 µm/m
	Permeability at 28 days. Penetration of water under pressure (5 atm) in accord with UNI EN 12390-8	20 mm
MICROSILBETON	Normal strength	C30/37
	Standard hygrometric shrinkage with R.H. 50% after 3 months	500 µm/m
	Permeability at 28 days. Penetration of water under pressure (5 atm) in accord with UNI EN 12390-8	10 mm
WATERPROOFBETON	Normal strength	C32/40
	Standard hygrometric shrinkage with R.H. 50% after 3 months	500 µm/m
	Permeability at 28 days. Penetration of water under pressure (5 atm) in accord with UNI EN 12390-8	5 mm