

CONCRETE MORTAR

Product Catalogue

CEMENTVAL

CEMENTVAL MATERIALES DE CONSTRUCCIÓN, S.L.

CEMENTVAL's concrete and mortar Business Lines currently have operational plants in Ribarroja del Turia (2), Albal, Sagunto and Gandía in Valencia, Beniarbeig in Alicante, and Campo Real and Humanes in Madrid.

All the plants are at the forefront of concrete and mortar manufacture, always being very respectful of the environment, and innovating in special products of our own manufacture of high quality and maximum performance, meeting the needs of the market and our customers. One of the most important values is the trust we generate through efficiency in services, excellence in results and, of course, in safety.

At CEMENTVAL we have facilities with the best technology, we use top quality raw materials, and we carry out rigorous controls in the different phases of the production process, thus generating an optimum environment for our collaborators.

CEMENTVAL has been a benchmark for years in the manufacture of industrial wet mortar and supplied in a fresh state.

The components of our mortars are prepared, dosed by weight, mixed and kneaded with the necessary water in the factory, to obtain a homogeneous mixture, and are supplied to the site completely ready for use.

Our mortars are composed of special raw materials that keep them workable during certain periods of time, in which the fresh mortar maintains all its characteristics, without diminishing the required properties of the hardened mortar.

CORPORATE GROUP

CEMENTVAL MATERIALES DE CONSTRUCCIÓN, S.L. is a subsidiary of CORPORACIÓN F. TURIA, S.A., parent company of a Spanish family owned business group with more than 80 years of history.

CORPORACIÓN F. TURIA, S.A. was founded in 1.940, and since its origins it has been dedicated to the manufacture and commercialization of cement, proceeding a few decades later to a vertical integration with the incorporation of the concrete and aggregates Business Lines.

Its historical vocation for the manufacture and marketing of construction materials has been maintained to the present day, and it was at the end of the 1990s when it was decided to begin a new phase of expansion and internationalisation, as well as diversification into new strategic and high value-added sectors.

The Group CORPORACIÓN F. TURIA, S.A. has focused on fulfilling what are considered the three fundamental pillars that will support the present and future of the group of companies, such as expansion, diversification and internationalisation, which has meant the implementation of a balanced business model that has been able to successfully combine the old and new areas of activity that make up the group of companies, is currently present through its subsidiaries and investee companies in various sectors of activity, with proven experience and specialisation in each of them, and also has several consolidated Business Lines, with high quality, high-performance products manufactured in-house.

The main Areas of Activity and the different Lines of Business that make them up, and which are currently carried out through the subsidiaries and investee companies of CORPORACIÓN F. TURIA, S.A., are CONSTRUCTION MATERIALS (cement, concrete, mortar, aggregates), CHEMISTRY (Construction, Agriculture), ENVIRONMENT (Waste Treatment and Recovery, Ecoparks) and BIOTECHNOLOGY (Recombinant Gonadotropins, Antibodies, Development of in vitro biological tests, Induction of reproductive cycles).

PAST

The history of CEMENTVAL MATERIALES DE CONSTRUCCIÓN, S.L. begins in November 1940 with a first cement factory located in Burjasot (Valencia), starting the cement activity through the Company CEMENTOS TURIA, S.A.

In 1955 a completely new factory was built on the same grounds and the first vertical furnace was put into operation.

Between 1959 and 1964, 3 more furnaces were installed, reaching a production capacity of 450,000 tons per year.

At the beginning of the seventies, two new cement factories were acquired, in Benagéber (Valencia) with a capacity of 100,000 Tm/year and in Contreras (Cuenca) with a capacity of 150,000 Tm/year. In 1974, through the subsidiary HISPANO SUIZA DE CEMENTOS, S.A., a new cement factory was built in Meco (Madrid) with a production capacity of 500,000 Tm/year. The factory was in operation for a few years until it was sold at the end of the seventies.

In the seventies it also began to sell concrete through its subsidiary HORMIGONES LEVANTE, S.A. (HORLESA), known for its characteristic concrete mixer trucks with the tanks painted in blue and yellow stripes. A few years later, the manufacture of mortars was incorporated, under the brand name MORMIX.

In 1993 CEMENTOS TURIA, S.A. sold its cement assets to ASLAND, S.A. (Lafarge Group), changing its name to CORPORACIÓN F. TURIA, S.A., the current parent company of the Group of companies. An expansion in the concrete and mortar Business Lines was then started, which led us to cover the Valencian Community from north to south, Albacete capital and three plants in Madrid, reaching a total of 19 operating plants.

In May 2005 the current cement grinding plant was opened in the Port of Sagunto (Valencia) from where cement is distributed to the Group's concrete plants and to all our customers. In 2012 the cement, concrete and mortar Business Lines were unified in the same Company under the name of CEMENTVAL MATERIALES DE CONSTRUCCIÓN, S.L.



MANUFACTURING

Concrete is an "artificial stone" formed by the mixture of cement, aggregates, water and additives, which is obtained by hardening the cement paste. The proportion of these components varies according to the type of concrete to be manufactured.

Our central concrete manufacturing process can be summarised in the following steps:

- Raw materials, once received, are inspected and stored in silos, hoppers or boxes specially designed to protect them from any possible environmental contamination.
- The dosage of these raw materials is carried out automatically by means of weighing scales and volumetric meters controlled by a complex computer program, which sends the orders to these systems to dose the materials in the appropriate proportions.
- Once weighed, the raw materials are introduced through a loading mouth to a mixer that will mix and homogenize the concrete.

The following controls are carried out throughout this process:

- Control of raw materials.
- Control of manufactured concrete.
- Control of the plant's installations and equipment.
- Control of the testing laboratory.
- Recording and communication of results.

The rigorous implementation of these controls means that CEMENTVAL optimises its manufacturing process to obtain a suitable product.

STRUCTURE

Transparency, efficiency and good service are the foundations of CEMENTVAL's infrastructure.

We have a wide network of human resources to advise and achieve all the requirements and technical needs of our clients, which is CEMENTVAL's priority objective.

- Logistics.
- Commercial.
- Quality.
- Technical.
- R&D.

CONCRETE AND MORTAR FACTORIES

Our facilities have resources capable of guaranteeing the best quality, productivity and good service to our customers, the health and safety of all our staff and, of course, environmental sustainability.

CEMENTVAL has an extensive network of production centres at regional level:

- Ribarroja del Turia (Valencia)
- Real de Gandia (Valencia)
- Sagunto (Valencia)
- Albal (Valencia)
- Campo Real (Madrid)
- Humanes (Madrid)
- Beniarbeig (Alicante)



Concrete range

CEMENTVAL's concrete Business Line currently has operational plants in Ribarroja del Turia (2), Albal, Sagunto and Gandía in Valencia, Beniarbeig in Alicante, and Campo Real and Humanes in Madrid.

All the plants are at the forefront of concrete manufacturing, always being very respectful of the environment, and innovating in special products of our own manufacture of high quality and maximum performance, attending to the needs of the market, and based on our experience and knowledge, offering the best service to our customers.

One of the most important values is the confidence we generate through efficiency in the services provided, excellence in results and of course in safety.

At CEMENTVAL we have a quality control and process laboratory and facilities with the best technology, we use top quality raw materials and carry out rigorous controls in the different phases of the production process, thus generating an optimum environment for our collaborators.

Our concrete has been used in numerous works and constructions, some of them of great notoriety due to their size and importance, such as the Port of Valencia or the La Fe University Hospital, projects in which CEMENTVAL's confidence in its work and technical solvency have been key to their execution.

CEMENTVAL's philosophy is based on satisfying the needs of our customers, providing them with the necessary technical advice and striving to exceed their expectations.

TYPES OF CONCRETE

- STRUCTURAL CONCRETE
- NON-STRUCTURAL CONCRETE:
 - NON-STRUCTURAL CONCRETE (HNE)
 - CLEANING CONCRETE (HL)
- FOUNDATION CONCRETE
- FLOOR SCREED CONCRETE
- CONCRETE WITH FIBRES
- PRINTED CONCRETE
- PAVING CONCRETE
- HIGH-STRENGTH CONCRETE

TYPES OF MORTAR

- SELF-LEVELLING MORTAR



STRUCTURAL CONCRETE

It is the concrete required in any type of reinforced or mass concrete structures, and used in both building and civil works.

Its main applications are pillars, beams, walls, slabs, floors, etc.

CEMENTVAL strictly complies with all the specifications indicated in the current Structural Concrete Instruction EHE - 08.

Types	HA (reinforced concrete) HM (mass concrete)
Resistances	20, 25, 30, 35 and 40 N/mm²
Consistencies	Dry (S), Plastic (P), Soft (B), Fluid (F) and Liquid (L)
Maximum aggregate size	12 and 20 mm
Environments	All

NON-STRUCTURAL CONCRETE

It is that concrete that, according to Annex 18 of EHE 08, does not provide structural responsibility, but that collaborates in improving the lasting conditions of the structural concrete or that provides the necessary volume of a resistant material to form the geometry required for a specific purpose.

There are two kinds:

CLEANING CONCRETE: its purpose is to prevent the drying out of the structural concrete during its pouring. The only concrete that can be used for this application is HL-150, since the minimum cement dosage is 150 kg/m³.

Types	HL -150
Cement content	≥ 150 kg/m³
Consistencies	Dry (S), Plastic (P), Soft (B), Fluid (F) and Liquid (L)
Maximum aggregate size	12 and 20 mm

STRUCTURAL CONCRETE: intended for any non-structural application other than cleaning. The minimum characteristic resistance of non-structural concrete will be 15 N/mm².

Types	HNE
Resistances	≥ 15 N/mm²
Consistencies	Dry (S), Plastic (P), Soft (B), Fluid (F) and Liquid (L)
Maximum aggregate size	12 and 20 mm

PAVING CONCRETE

Concrete used in pavements that are going to support high mechanical loads by flexotraction, such as the circulation of vehicles or heavy machines. It is commonly used in airports, ports and roads.

Types	HF
Flexotraction resistance	3 - 3.5 - 4 - 4.5 N/mm²
Consistencies	Dry (S), Plastic (P), Soft (B) and Fluid (F)
Maximum aggregate size	12 and 20 mm

FOUNDATION CONCRETE

It is a concrete specifically designed to be used in foundations that need a high level of settlement. It is the typical concrete for diaphragm walls and piles, which require a high fluidity and ease of installation given the difficulty of execution of these elements.

Types	HA (reinforced concrete)
Resistances	25, 30, 35 and 40 N/mm²
Consistencies	Fluid (F) and Liquid (L)
Maximum aggregate size	12 and 20 mm
Environments	All

SILL CONCRETE

Concrete that will be subjected to a surface polishing or final trowelling achieving an excellent finish. For its correct implementation, superfluidizing additives are used, which do not delay the setting process and minimize the waiting time for troweling depending on environmental conditions. The granulometry is designed to achieve the best texture and the least shrinkage.

Types	HA (reinforced concrete) HM (mass concrete)
Resistances	20, 25, 30, 35 and 40 N/mm²
Consistencies	Soft (B), Fluid (F) and Liquid (L)
Maximum aggregate size	12 and 20 mm
Environments	All

CONCRETE WITH FIBRES

It is a concrete, generally a screed, to which polypropylene or metal fibres are added. The main function of the fibre is to significantly reduce the appearance and propagation of shrinkage cracks. With the use of the metallic fibre, the performance of flexotraction is also improved. In some cases the mesh can be replaced by the use of the fibres.

Types	HA (reinforced concrete) HM (mass concrete)
Resistances	20, 25, 30, 35 and 40 N/mm²
Consistencies	Dry (S), Plastic (P), Soft (B), Fluid (F) and Liquid (L)
Maximum aggregate size	12 and 20 mm
Environments	All

PRINTED CONCRETE

This concrete is specially elaborated to make a superficial engraving in it by means of a mould, being this one perfectly printed since the granulometry of this concrete is studied so that the final texture is the best possible one. CEMENTVAL's printed concrete is designed in such a way that the pouring, laying, setting and engraving times of the concrete are optimal.

Types	HA (reinforced concrete) HM (mass concrete)
Resistances	20, 25, 30, 35 and 40 N/mm ²
Consistencies	Plastic (P) and Soft (B)
Maximum aggregate size	12 and 20 mm
Environments	All

SELF-COMPACTING CONCRETE

It is the future alternative to conventional concrete, with a great ease of placement that allows the concrete to reach places of difficult access, as it only fills the structural element with a very good finish, without the need for any vibration or compaction. It is especially recommended for structures where there is a high density of reinforcement.

This concrete also greatly improves the quality of the finish of the exposed surfaces, increasing their uniformity.

Types	HA (reinforced concrete) HM (mass concrete)
Resistances	30, 35 and 40 N/mm ²
Consistencies	Self-compacting (AC)
Maximum aggregate size	12
Environments	All

CEMENTVAL recommends ordering self-compacting concrete with a maximum aggregate size of 12 mm.

LIGHTWEIGHT CONCRETE

It is a concrete made with low density aggregates and/or with airing additives, so that the final product has a lower density than conventional concrete. In this way, light and insulating structures are achieved, both acoustically and thermally.

This concrete is usually used in slab, floor or slab rebuilding.

Types	HLE
Resistances	15 – 17,5 – 20 – 25
Consistencies	Dry (S), Plastic (P), Soft (B), Fluid (F) and Liquid (L)
Maximum aggregate size	Depending on the raw material
Environments	All

HEAVY CONCRETE

Concrete in which the aggregates used are of high density It is ideal for protective structures against radiation (e.g. nuclear reactors, X-ray rooms, ...), due to its capacity to absorb high-energy particles.

Types	HA (reinforced concrete) HM (mass concrete)
Resistances	20, 25, 30, 35 and 40 N/mm ²
Consistencies	Dry (S), Plastic (P), Soft (B), Fluid (F) and Liquid (L)
Maximum aggregate size	Depending on the raw material.
Environments	All

POROUS CONCRETE

Porous concrete is the solution for concrete floors in the drainage of rainwater, streets, car parks, sports grounds, etc. The design of the mixture allows this concrete to have a high drainage capacity, minimizing the risk of sudden flooding or water accumulation. CEMENTVAL's porous concrete has improved fluidity compared to other porous concretes, making it easier to apply.

Types	HM (mass concrete)
Resistances	10 - 12.5 - 15 N/mm ²
Consistencies	Liquid (L)
Maximum aggregate size	8 and 12 mm
Environments	I

HIGH RESISTANCE CONCRETE

It is a concrete which requires very high performance in terms of resistance and durability, as it is subject to very high mechanical loads or very aggressive environments. Its high cement content also means that it has very low permeability.

Types	HA (reinforced concrete) HM (mass concrete)
Resistances	≥ 45 N/mm ²
Consistencies	Fluid (F) and Liquid (L)
Maximum aggregate size	12 and 20 mm
Environments	All



Special products

DEACTIVATED CONCRETE.

CEMENTVAL MATERIALES DE CONSTRUCCIÓN, S.L., in its desire to differentiate and improve continuously, markets different types of deactivated concrete designed and applied to the satisfaction of our customers.

Formulated under mechanical and aesthetic finishing requirements.

The versatility of this concrete is twofold, offering a pavement of innovative and aesthetic quality and also behaving mechanically like a conventional concrete of high durability. Providing the user with both benefits.

DRAINING CONCRETE.

It is used when a high porosity and permeability is to be achieved, while at the same time achieving mechanical resistance and a good aesthetic finish.

- It facilitates the rapid evacuation of rainwater.
- It improves the adherence of vehicles to the pavement.
- Noise reduction due to traffic.
- Obtaining mechanical resistance.
- It makes it possible to reuse water.

SELF-COMPACTING CONCRETE.

- This is the perfect solution for concreting heavily reinforced structural elements, while achieving an excellent texture and surface finish.
- It is the most suitable when the aesthetic aspect prevails, or when complex design structures and geometry are to be achieved.
- Its cement content, the compactness of the concrete and the good covering of the reinforcements make it possible to obtain structures with a higher durability than conventional concrete.

SPECIAL STRUCTURAL LIGHTWEIGHT CONCRETE (HLE) FOR PUMPING.

Designed for environmental sustainability through energy efficiency in buildings.

Indicated for structures or re-creations that require a significant reduction in the specific weight of the concrete, without losing mechanical resistance or durability.

Its low density makes it an ideal product for obtaining up to 3 times more thermal insulation than conventional concrete.

SPECIAL PUMPED LIQUID CONCRETE.

Concrete with high fluidity (liquid consistency) and great cohesiveness, designed for pumping with special characteristics.

This concrete can easily be pumped through long lengths of pipe or small diameter hoses, while maintaining a high workability and fluidity at the outlet, while maintaining mechanical and durability requirements

SELF-LEVELLING MORTAR

CEMENTVAL manufactures self-levelling mortars under the name C12F2 or C20F3. Unbeatable leveling. Finer finish than any other mortar.

Deactivated concrete

This is a concrete whose hardened finish leaves the exposed aggregate on its surface, thus achieving a pleasant aesthetic appearance. CEMENTVAL MATERIALES DE CONSTRUCCIÓN, S.L. markets under this concrete line different types of finishes, designed and applied to the satisfaction of our customers.

APPLICATIONS

Its generic application is any unit of work that is also to be used as a decorative element. It is particularly suitable for exterior flooring, such as:

- Pedestrian areas, squares, promenades, pavements, rural roads, parks, ...
- Garage entrances and exits.
- Bicycle lanes.
- Swimming pool access areas.
- Access ramps for the disabled.
- Common areas in urbanizations and communities. Gardens.
- Roundabouts.

Due to its resistance to slipping, it is considered a class 3 floor according to the Technical Building Code, so it is ideal for areas where there is water on the surface from sprinkler irrigation, edges and pool areas, or rainwater.

ADVANTAGES

- Multiple design combinations, depending on the type and granulometry of the aggregate. Possibility of giving colour to the concrete mass by means of dyes. Unique personalisation of the pavement.
- Quick execution and implementation. Reduction of the cost of labour due to the performance obtained.
- Concrete of easy and economic maintenance.
- Greater resistance and durability than traditional exterior terraces
- Non-slip texture.
- CEMENTVAL provides the material and the application.
- Originality of diseños We offer even more exclusive finishes with the possibility of adding different colours of glass or photoluminescent aggregates.
- Very good integration with natural landscapes.



Deactivated concrete FACTS

Concrete Type	Mass Concrete (MH) Armed Concrete (HA)
Resistances	20, 25, 30 MPa
Consistencies	Soft, Fluid
Maximum aggregate size	Depends on the selected aggregate
Durability (environments)	Same as conventional concrete

CTE - Basic Document on Safety in Use and Accessibility (DB-SUA)

Table 1.1 Classification of soils according to their slipperiness

Slip resistance Rd	Class
Rd ≤ 15	0
15 < Rd ≤ 35	1
15 < Rd ≤ 45	2
Rd > 45	3

Table 1.2 Required class of soils according to location

Location and soil characteristics	Class
Dry indoor areas	
- surfaces with a gradient of less than 6%	1
- surfaces with a slope equal to or greater than 6% and stairs	2
Wet interior areas , such as entrances to buildings from outside, covered terraces, changing rooms, bathrooms, toilets, kitchens, etc.	
- surfaces with a gradient of less than 6%	2
- surfaces with a slope equal to or greater than 6% and stairs	3
Outdoor areas . Swimming pools. Showers.	3

Drainage concrete

Drainage concrete is used when high porosity and permeability are required, while at the same time achieving mechanical resistance and a good aesthetic finish. Its high drainage capacity facilitates the collection of rainwater and its channelling, thus favouring its ecological management. Drainage concrete consists of an aggregate of cement, water, special additives and aggregates of selected grain size with a very low percentage of fines. CEMENTVAL's drainage concrete differs from other porous floors in its high fluidity and ease of handling when laid on site.

APPLICATIONS

- Sports tracks.
- Car parks.
- Urbanizations.
- Light traffic pavement wearing courses.
- Fillings.
- Sub-base of artificial grass pavement.
- Any type of surface where you want to avoid the accumulation of puddles of water or liquids.

STORAGE

- It facilitates the rapid evacuation of rainwater.
- Lower specific weight than conventional concrete.
- Better vehicle adherence to the pavement.
- Noise reduction due to traffic.
- Quick to set up and easy to install due to its fluidity.
- Obtaining mechanical resistance.
- Lower maintenance cost than asphalt mix.



Drainage concrete CHARACTERISTICS

Compression resistance (UNE-EN 12390-3)	10 - 15 N/mm ²
Type of concrete	mass production (HM)
Maximum aggregate size	8, 12 mm
Concrete density	1700 - 2000 kg/m ³ (depending on the nature of the raw material)
General type of exhibition (according to Table 8.2.2 of EHE)	I (non-aggressive)

Implementation of the project

- It is laid by means of a paver and does not require vibration, although it does require compaction (normally by means of a roller).
- Do not apply in wet or rainy weather.
- The support must be resistant and stable, and if it is very absorbent it must be previously wetted.
- Carry out expansion joints.
- Never add water or any other product on site.



Self-compacting concrete

Self-compacting concrete is a new concept of concrete which is designed to have a very fluid consistency when fresh, so that it can flow and fill all parts and corners of the formwork or mould, solely by the action of its own weight. This means that no external compacting or vibrating means are necessary.

This is the perfect solution for concreting heavily reinforced structural elements, while achieving an excellent texture and surface finish.

This last point makes this concrete the most suitable when the aesthetic aspect prevails, or when complex design and geometry structures are to be achieved.

Its cement content, the compactness of the concrete and the good covering of the reinforcements make it possible to obtain structures with a higher durability than conventional concrete.

APPLICATIONS

- All types of structures (walls, pillars, slabs, ...) with a high density of reinforcement.
- Exposed concrete structures, where a good aesthetic finish is required, including concrete elements where special textures are required (wood, reliefs, ...).
- Structures that are difficult to execute due to their complex shape or extension.
- Work units that need the self-levelling of the concrete.

STORAGE

- Reduced labour and savings on vibration and compaction tools.
- Quick execution.
- Easy flow through high density reinforcement structures.
- High durability.
- Excellent surface finishes.
- Possibility to concrete structures of complex shape.
- Elimination of stress and noise due to vibration.



Self-compacting concrete CHARACTERISTICS

(according to article 39.2 of Annex 17 of EHE-08)	COMPRESSIVE STRENGTH (UNE-EN 12390-3)		≥ 30 N/mm2
	MAXIMUM AGGREGATE SIZE		12, 20 (Cementval always recommends using a maximum aggregate size of 12 mm)
	DENSITY OF FRESH CONCRETE		≥ 2350 kg/m3
	TYPICAL PROPERTIES OF SELF-COMPACTATION		
	Type of autocompatible concrete	Criteria	
	Runoff (Drainage test, UNE 83361)	AC-E2	650 < df ≤ 750 mm 6
	Viscosity (V-shaped funnel test, UNE 83364)	AC-V2	sec ≤ TV ≤ 10 sec
	Resistance to blockage (L box test, UNE 83363)	AC-RB2	≥ 0.80, with 3 bars

CEMENTVAL's self-compacting concrete meets all the specifications required by the Structural Concrete Instruction, EHE - 08, in its Annex 17: "Recommendations for the use of self-compacting concrete", and among them the general requirements for self-compacting indicated in its Table A.17.2:

Table A.17.2.- General requirements for self-compaction

Essay	Measured parameter	Permissible range
Runoff	T5	T50 ≤ 8 sec
	0	550 mm ≤ df ≤ 850
V-shaped funnel	df	mm 4 sec ≤ TV ≤ 20 sec
L-shaped box	TV	0.75 ≤ CbL ≤ 1.00
J-ring drainage	Cb	V-shaped funnel
	L	
	dJf	

At the same time, the Self-Compacting Concrete amply complies with the limits established by the EHE-08 regarding the minimum cement content and the maximum water/cement ratio, according to the exposure class.

Recommendations for application and implementation

- The transport of self-compacting concrete is carried out in a concrete mixer truck and its unloading can be done directly, in a bucket or by pumping, although the pumping system is always recommended.
- The concrete can be discharged with a free fall of less than or equal to 2 m as indicated by the EHE, but it is advisable to make the pouring as close as possible to the bottom of the formwork and even to use a tube or hose to facilitate its viewing, thus avoiding the possible disintegration of the concrete and the appearance of cokes.
- The maximum recommended distance between the discharge and laying points of the self-compacting concrete should not exceed 7 - 8 m.
- It is necessary to respect some minimum times of demolding to avoid the sticking of material to the forms and with it its superficial starting. It is recommended that the forms or moulds are new or are as clean as possible so that they do not have any adhering residue.
- Use the release agent correctly by applying it evenly over the entire surface of the formwork.
- Ensure the watertightness of the formwork and the permissible static pressure of the formwork, as the pressure exerted by the self-compacting concrete is higher than that of conventional concrete. If necessary, improve the watertightness of the formwork by sealing the joints with special products.
- The elements to be embedded in the concrete (especially reinforcement) must be suitably fixed.
- Cure the concrete as it is done with conventional concrete.
- Never add water or any other product on site.

ConcreteSpecial liquid for pumping

Concrete with high fluidity (liquid consistency) and great cohesiveness, designed for pumping with special characteristics.

CEMENTVAL MATERIALES DE CONSTRUCCIÓN, S.L. has a great deal of experience in supplying this type of concrete, especially in concrete pumping carried out with small stationary pumps, normally used when there is not enough space to place a conventional concrete pump, or when the point of concrete pouring is difficult to access.

This concrete can be easily pumped through long lengths of pipe or small diameter hoses, while maintaining a high workability and fluidity at the outlet.

Its great versatility makes it ideal for pumping with conventional pumps where you want to pump concrete at great heights or over long distances.

It is a concrete specially designed not to have any kind of segregation in elbows or narrowing that could cause the clogging of the pumping.

APPLICATIONS

- Concrete pumps where small stationary pumps are used (typical of mortar pumping).
- Rearranged.
- Fratted (polished) paving.
- Printed concretes.
- Levelling of floorings.
- Structural concrete.
- Concrete with high density of reinforcement.

ADVANTAGES

- Easy pumping with small pumps or with a long pumping circuit.
- Easy to apply and put into place, due to its liquid consistency, the concrete remains very workable when unloaded and placed.
- Ease of compaction. It is a concrete that, without being self-compacting, requires very little effort in its compaction.
- Obtaining mechanical resistance.



Special liquid concrete for pumping

COMPRESSIVE STRENGTH	(UNE-EN 12390-3)	20 - 35 N/mm2
TYPE OF CONCRETE		mass (HM)
armed (HA)		15 mm
MAXIMUM AGGREGATE SIZE		12 mm
CONCRETE DENSITY		2300 - 2400 kg/m3 (depending on the nature of the raw material)

Implementation of the project

- Never add water or any other product on site.
- If plastic or other fibres are to be added, it is advisable to dose them in the concrete plant for better homogenisation of the product.
- Lubricate the pump correctly before starting the delivery, with a cement slurry. CEMENTVAL can also supply this product.



Lightweight pumpable structural concrete

Included in the wide range of mortars and concretes that CEMENTVAL can offer, the special HLE stands out as a lightweight structural concrete designed for environmental sustainability through energy efficiency in construction.

Lightweight concrete is particularly suitable for structures or screeds that require a significant reduction in the specific weight of the concrete, thus increasing the overload that the structural element can withstand, without losing mechanical strength.

Its low density makes it an ideal product for obtaining high thermal and/or acoustic insulation.

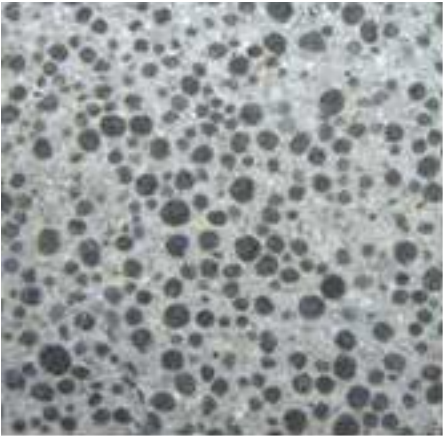
What makes it different from other conventional lightweight concretes is its great pumpability and workability at lower than usual densities without any problems of disintegration. It can be perfectly pumped with both concrete and stationary mortar pumps.

APPLICATIONS

- Lightened structures (slabs, columns, beams, walls, ...)
- Lightened slabs.
- Lightweight insulating covers.
- Lightweight re-growths.
- Rehabilitation of slabs.

ADVANTAGES

- Reduction of 30 - 40% of the specific weight of conventional concrete.
- Thermal and acoustic insulation (due to the low density obtained)
- Fire resistance.
- Pumpability, great workability and fast execution.



Lightweight pumpable structural concrete CHARACTERISTICS

RESISTANCE TO COMPRESIÓN (UNE-EN 12390-3)	20 - 35 MPa
CONSISTENCIA (UNE-EN 12350-2)	Liquid
MAXIMUM AGGREGATE SIZE	15 mm
CONCRETE DENSITY	1500 - 1650 kg/m³
THERMAL CONDUCTIVITY (UNE-EN 12667:2002)	0.5 - 0.6 W/m K

Recommendations for use

- Never add water or any other product on site.
- If plastic or other fibres are to be added, it is advisable to dose them in the concrete plant for better homogenisation of the product.
- Lubricate the pump correctly before starting the delivery, with a cement slurry. CEMENTVAL can also supply this product.





Mortar

CEMENTVAL has been a benchmark for years in the manufacture of industrial wet mortar and supplied in a fresh state.

CEMENTVAL's mortar Business Line currently has operational plants in Ribarroja del Turia, Albal, Sagunto and Gandía in Valencia, Beniarbeig in Alicante, and Campo Real and Humanes in Madrid.

The components of our mortars are prepared, dosed by weight, mixed and kneaded with the necessary water in the factory, to obtain a homogeneous mixture, and are supplied to the site completely ready for use. We have a quality control and process laboratory equipped with the most modern technology, to guarantee the conformity of the products for all types of masonry work.

Our mortars are composed of special raw materials that keep them workable during certain periods of time, in which the fresh mortar maintains all its characteristics, without diminishing the required properties of the hardened mortar.

CEMENTVAL's philosophy is based on satisfying the needs of our customers, providing them with the necessary technical advice and striving to exceed their expectations.

TYPES OF MORTAR

- Stabilised mortars with CE Marking in accordance with the UNE-EN 998-2 standard, used in masonry for ordinary use (G), for structural requirements, external constructions and thermal insulation.
 - M-7,5
 - M-5
- Stabilised mortars with the CE mark in accordance with the UNE-EN 998-1 standard, for plastering and rendering for general use (GP).
 - M-7,5
 - M-5
- Mortars for flooring.

TYPES OF SELF-LEVELLING

- CT-C12-F2 and CT-C20-F3 self-levelling mortars with declaration of performance in accordance with the UNE-EN 13813 standard supplied by dosage.

Self-levelling mortar

The self-levelling mortar manufactured by CEMENTVAL MATERIALES DE CONSTRUCCIÓN, S.L. is a product formulated from cement, inert sands of selected grain size, water, additives and special fibres. It is supplied by means of a truck mixer and placed on site by means of a pumping system. It does not require any external element for its placement as it flows by itself until it is completely leveled. Only a cross-shaped level is sufficient for uniform distribution over the entire surface. This type of mortar is particularly suitable for the execution of interior flooring or rendering, and for use as a base for ceramic tiles, parquet, wood, linoleum. CEMENTVAL manufactures self-levelling mortars under the name C12F2 or C20F3.

ADVANTAGES

- Speed of execution: increased performance in its placement. Up to 700 m2/day in partitioned work and 1000 m2/day in open plan.
- Planimetry: unbeatable leveling. Finish much finer than with any other mortar, whether it is plaston or applied by means of masters.
- Profitability: elimination of the costly process of storing the mortar by crane or forklift. Significant reduction in execution times.



Self-levelling mortar CHARACTERISTICS

Compression resistance (to 28 days). UNE-EN 13982-2	12 or 20 N/mm ²
Resistance to bending (to 28 days). UNE-EN 13982-2	2 or 3 N/mm ²
Consistency	250 ± 20 mm
Density of the fresh mortar	2.1 ± 0.1 kg/l
Density of the hardened mortar	2.0 ± 0.1 kg/l

Recommendations for use

- It is recommended that before applying the mortar all the locks should be finished, to avoid the negative action of weather agents (sun, wind, frost, ...).
- Preparation of the planimetry with the placement of reference levels with laser technology. The recommendations of minimum thicknesses of 5 to 8 cm. necessary to avoid cracking of the applied mortar must be maintained at all times.
- In the event that impact protection film is to be used, in the process of laying it, folds on the floor must be completely avoided and it must be kept together at all points, so that there are no folds or air pockets.
- The perimeter of the house will be protected as well as the areas of pillars and downpipes, with cor-tainers.
- During execution, the mortar must be properly compacted and de-aerated through a level, since inadequate compaction can lead to the appearance of bubbles and craters.
- The self-levelling mortar must be cured to avoid rapid evaporation of water that could cause cracking by shrinkage. Therefore, measures should be taken to avoid rapid drying out and, in particular, air currents and dry environments should be avoided by properly closing doors and windows, wetting the surface and/or applying suitable curing liquids. It is especially important to carry out this measure at points where the mortar may be exposed to the sun.
- If adhesives or glues are used to apply the final coating, polish the surface of the mortar with a machine or scrape it off with a spiked brush.
- Once the execution has been completed, the mortar must not be stepped on for at least 24 hours. Likewise, it should not be loaded with pallets of bricks, facing, etc., until at least 7 days have passed.

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