

CALCESTRUZZO FIBRATO

Fibre-reinforced pre-dosed concrete for structural use (Rck 30 N/mm²)

It consists of: siliceous aggregate (0/10 mm), cement, fibres (compliant with UNI EN 197-1).



THE ADVANTAGES

- **STRUCTURAL** (Rck 30 N/mm²)
- Great **WORKABILITY**

FIELDS OF APPLICATION

- Structural elements (beams, pillars, foundations, walls, etc.).
- Collaborating slabs (floors, refurbishments, etc.).
- "Visible" constructions (stairs, road kerbs, planters, etc.).
- Concrete floors.

EXPOSURE CLASSES

Environment examples	UNI EN 206 (abroad)	UNI 11104 (Italy)
Dry or always wet (interiors of buildings or structures submersed in water)	XC1	XC1
Wet and rarely dry (tanks, foundations, structures submersed in water or in non-aggressive soils)	XC2	XC2

PRODUCT PREPARATION

- Pour the whole package content (and not only a part) in an auger mixer (TURBOMALT), or in a cement mixer.
Do not mix for more than 3 min. It can also be mixed by hand (as long as the mix is homogeneous).
- **Use the mixing water quantity indicated in the table.**



USE MODES

- Laying time: within 20 minutes from mixing.
- Interruptions and cold joints: not above 20-25 min.
- Pump (if any): suitable for concrete.
- FLOOR use: create expansion joints (cuts) every 16-20 m².

WARNINGS

- "Visible" joints: use a single production lot (for a uniform chromatic effect).
- Operating temperature: from + 5° C to + 35° C.
- Temperature > + 25° C: protect the joints (keep the surface wet or cover it with polyethylene sheets).
- Additions to the original compound: to be avoided.
- Recommended use: professional.

STOCKING AND STORING

- **It can be stored for up to 6 months** in closed and intact packages, in a fresh, dry and covered environment, protected against heavy rain, frost and direct sunlight.
- Do not expose to sunlight for more than 30 days (the package will deteriorate!).
- After removing the polyethylene protection (around and/or above the pallet) protect the packages from the rain.

TECHNICAL DATA

MIXING WATER	approx. 1,5-2 litres per package
DENSITY (hardened)	2.300 - 2.400 kg/m ³
RESISTANCE TO COMPRESSION (after 28 days)	Rck 30 N/mm² Class C 25/30
EXPOSURE CLASSES	See table
CONSISTENCY CLASS	S4 (fluida)
MAX. DIAMETER OF THE AGGREGATE	10 mm
SETTING TIMES	IP = 5 hours / FP = 7 hours (setting start/setting end)
CEMENT DOSAGE	370 kg/m ³
RATIO A/C	0,60
CONSUMPTION	approx 84 packages/m³ of mix
PACKAGE	25 KG POLYETHYLENE PACKAGES

HAZARDOUS SUBSTANCES

Asbestos (Italian Ministerial Decree 14/05/96 Art. 4 Annex 4): absent

Water-soluble chromium VI (Italian Ministerial Decree 10/05/04): < 2 ppm

Technical data are mean values got from analysis done on several samples of products.

IMPORTANT NOTE

GRAS CALCE srl periodically checks in laboratory, according to current regulations, the characteristics and performance of the manufactured products making sure they correspond to the values indicated in the relevant technical sheets. Each product is able to provide the required performance only if it is stored, prepared and used in a correct and adequate manner, in compliance with all specified indications and technical warnings. Any variations of the above-mentioned indications (water quantity, mixing time, construction site environment temperature and humidity, application time, etc.) may significantly alter the characteristics and performance of the product. For these reasons it is of key importance that the Company and the work managers perform some preliminary tests in the construction site to validate the product for the purpose to compare it with the different needs and application conditions.

WATER QUANTITY

Start by mixing 50% of the indicated minimum water quantity, check mix consistency (SLUMP measurement), gradually add water and check the SLUMP again until obtaining, and NOT EXCEEDING, the consistency class specified in the Technical Sheet. In any case, NEVER EXCEED the maximum indicated water quantity.

EXAMPLES OF APPLICATION



Soil retaining walls made with structural CALCESTRUZZO FIBRATO for the reconstruction of a commercial area in Milan.



Terracing made with retaining walls reinforced in structural CALCESTRUZZO FIBRATO .

The indications and warnings listed in this sheet are the result of our best experience, and product performance refers to lab tests performed in standardised conditions. All this information is to be considered purely indicative as real construction site and product application conditions can lead to significantly different results and effects. Therefore, the user must always check, also with preliminary tests, the suitability of the product for the envisaged use, taking full responsibility for its use. GRAS CALCE srl reserves the right to make technical changes without prior notification. Check on GRAS CALCE srl website that the sheet review is the latest in force.