







# RESISTO FLUID

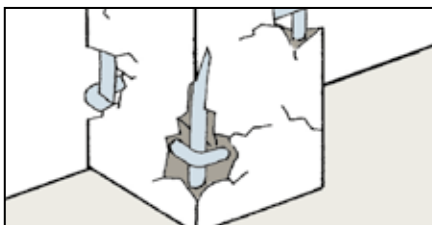
HIGHLY RESISTANT FIBRE-REINFORCED CASTABLE MORTAR WITH COMPENSATED SHRINKAGE FOR STRUCTURAL REFINISHMENTS OF CONCRETE

GRANTS *LEED* CREDITS

CHARACTERISTICS	ENVIRONMENTAL	METHOD OF USE	PRECAUTIONS
	 ECO GREEN	 RECYCLABLE	 STORAGE: IN A DRY PLACE
		 MIX MECHANICALLY	

## PROBLEM

### REPAIRING CONCRETE WITH FORMWORK



In the most serious cases of concrete refurbishment, when complete structural reinforcement is required, it becomes necessary to use mortar of high strength and fluidity which may be poured into formwork.

## SOLUTION

**RESISTO FLUID** is a ready-mixed mortar in powder form ready to use, containing high-strength cement, selected aggregates, synthetic fibres and special additives. With **RESISTO FLUID** a high fluidity mortar is obtained, suitable for pouring into formwork.



## APPLICATION FIELDS

**RESISTO FLUID** mortar is used to refurbish concrete floors and for the structural rebuilding of pillars, columns and concrete beams. **RESISTO FLUID** is excellent for use in cases where considerable structural refurbishment is required for which formwork will be necessary.

## ADVANTAGES

- High fluidity with low water/cement ratio.
- High mechanical strength
- Excellent adhesion to substrate and to reinforcement bars.

## METHOD OF USE

### • PREPARING THE SUBSTRATE

It is necessary to remove any loose parts and parts lacking in solidity by chiselling, brushing or high power pressure cleansing. Remove any traces of oil, release agents, rust and dirt in general.

Any exposed bars should be cleaned and passivated with STRATO FER or cement grout and STRATO 4900 (1).

Dampen the substrate without creating films of water; any which form can be eliminated using compressed air or a sponge.

### • PREPARING THE MIX

**RESISTO FLUID** should be mixed with clean water (3.3 litres per 25 kg bag). You are recommended to mix in a cement mixer (2) first pouring in 2/3 of the water required, then gradually adding the dry product and finally the remaining water. Mix for 3 minutes at the most until the mix is smooth and without

lumps. If you need to prepare small quantities of mortar, mix with a mechanical drill-stirrer and not a trowel. Avoid incorporating too much air during preparation.

### • APPLICATION

**RESISTO FLUID** should be poured into the formwork from one side only with a continuous flow to encourage any air to escape (3). To prevent the formwork from drawing water from the mix, it should be treated with DISARMFER or DISARMWOOD release agents (4).

With **RESISTO FLUID** it will not be necessary to subject the casting to mechanical vibration but it is advisable to use wooden battens to facilitate the flow of the mortar into areas which are particularly difficult to reach. The reinstated surfaces should be cured carefully and if necessary protected against heat, cold and dynamic actions

throughout the whole setting time. During the curing phase and especially in ventilated rooms, the mortar must be protected and wetted constantly to prevent it from drying out too quickly. This treatment is performed by spraying mists of water on the surface over the first 24 hours of setting of the mortar or by applying special anti-evaporating protections over the surface.

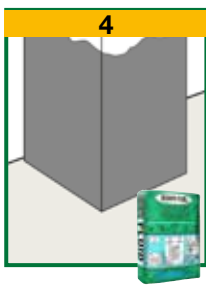
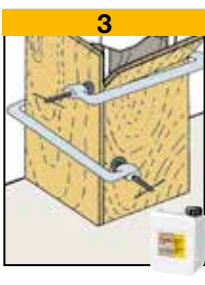
Maximum recommended thickness: 10 cm. Greater thicknesses can be obtained by adding 20-30% of gravel (3-8 mm).

### • CONSUMPTION

About 2 kg/1000 cm<sup>3</sup>.

### • PRECAUTIONS

- Use cold water in summer and water at 20°C in winter.
- Application temperature from +5°C to +35°C.
- Do not add water once the mix has started to set.
- Do not add any other materials such as cement, aggregates and additives.
- In hot weather, keep dampening the finished mortar surface for at least 24 hours to stop it from drying out too quickly.



(See following)

## TECHNICAL CHARACTERISTICS

	Standard	RESISTO FLUID
Appearance		Powder
Colour		Grey
Particle size		0 to 3 mm
Apparent density		1.40 ± 0.10 kg/ℓ
Mix water		13% ± 1%
Storage in original packaging in a dry place		12 months
<b>Mix properties and workability</b>	<b>Standard</b>	
Density of mix	<b>EN 1015-6</b>	2.10 ± 0.10 kg/ℓ
pH of mix		about 12
Workable mix duration (*)		about 60 minutes
Application temperature		+5°C to +35°C
Expansion of mix	<b>EN 13395-1</b>	280-300 mm (without shocks)
Minimum application thickness		10 mm
Maximum application thickness		50 to 100 mm (with 30% gravel)
Application		Manual
<b>Performance characteristics</b>	<b>Standard</b>	<b>Product performance</b>
<b>Class and type</b>	<b>EN 1504-3</b>	<b>R4 - CC</b>
<b>Compression strength - after 28 days</b>	<b>EN 12190</b>	≥45 MPa
Bending strength - after 28 days	<b>EN 196-1</b>	≥10 N/mm <sup>2</sup>
<b>Elastic compression modulus</b>	<b>EN 13412</b>	≥20 GPa
<b>Chloride ion content</b>	<b>EN 1015-17</b>	Absent
<b>Bond strength</b>	<b>EN 1542</b>	≥2.0 MPa
<b>Thermal compatibility with frost-thaw cycles - Part 1</b>	<b>EN 13687-1</b>	≥2.0 MPa
<b>Capillarity water absorption</b>	<b>EN 13057</b>	w ≤ 0.5 kg/m <sup>2</sup> ·h <sup>0.5</sup> - W1
<b>Durability - Resistance to carbonation</b>	<b>EN 13295</b>	Test passed
Thermal resistance - Operating temperature		-30°C to +90°C
<b>Fire reaction</b>	<b>EN 13501-1</b>	A1
<b>Hazardous substances</b>	<b>EN 1504-3</b>	In accordance with note in ZA.1

Test conditions: temperature 23±2°C, R.H. 50±5% and air speed in test area <0.2 m/s. **The data shown may vary depending on the specific work site conditions: temperature, humidity, ventilation, absorbency of the base coat.**

(\*) The times indicated will be longer or shorter as the temperature drops or rises.

Compliant with the general principles defined in **EN 1504-9** - Principles for evaluating the use of products and systems.

(See previous)

- In hot weather (if temperature is over 30°C) open time is reduced to 20-30 minutes.
- Do not apply on smooth surfaces.
- Straight after application, clean tools with water and the coated surfaces with a damp cloth.
- Do not expose the material to the sun in hot weather.
- Store in original closed packaging in a dry place.

## PACKAGING

**RESISTO FLUID**  
25-kg Sacks

• FOR ANY FURTHER INFORMATION OR ADVICE ON PARTICULAR APPLICATIONS, CONTACT OUR TECHNICAL OFFICE • IN ORDER TO CORRECTLY USE OUR PRODUCTS, REFER TO INDEX TECHNICAL SPECIFICATIONS •

 <b>Construction Systems and Products</b> Via G. Rossini, 22 - 37060 Castel D'Azzano (VR) - Italy - C.P.67 T. +39 045 8546201 - F. +39 045 518390	Internet: <a href="http://www.index-spa.com">www.index-spa.com</a> Informazioni Tecniche Commerciali <a href="mailto:tecom@indexspa.it">tecom@indexspa.it</a> Amministrazione e Segreteria <a href="mailto:index@indexspa.it">index@indexspa.it</a> Index Export Dept. <a href="mailto:index.export@indexspa.it">index.export@indexspa.it</a>		 UNI EN ISO <b>9001</b>	 UNI EN ISO <b>14001</b>	 socio del GBC Italia	
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