# SELF COMPACTING & SELF LEVELING GP PRODUCTS FOR CONCRETE FLOORING AND ROAD REPAIRING

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# GeoMITS

**MATERIAL**
**INNOVATION**
**TECHNOLOGY**
**SERVICE**

**GeoMITS is focused on :**

- **Consulting, R&D and supplying Geopolymer binders (precursor powder compounds and liquid hardeners, thanks to the supporting partner INGESSIL Srl) for several applications**
- **Selling complete GP KITS for several applications**
- **Customization of automatic mixing plants (mobile and fixed central beton) for production from laboratory to industrial scale**
- **Complete design of final geopolymer recipes including the selection of best partially reactive aggregate curve and intermediation between clients and aggregates supplier**

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# *OUTLINE*

Introduction

Mixing method and mixing instructions

Industrial testing of KITS

Performances (Technical Data sheet)

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# INTRODUCTION

Structural repair of concrete flooring, with or without metal reinforcement, is critical for manifacturers that work with heavy mobile machineries (forklifts or trucks) and lifting heavy loads.

Clients asked for performances like thermal shock resistance (ceramic tiles companies, foundries, etc.), abrasion resistance and they need solutions for application indoor and outdoor, both with fast hardening time, for a quick return to work.

GeoMITS developed 2 different but compatible solutions to satisfy those requirements:

- GEO_FIX03 structural SCC GP glass fiber reinforced concrete, for thickness from 1,5 to 10 cm
- GEO_FIX07 structural SLU GP glass fiber reinforced mortar, for thickness form 0,2 to 1 cm

GEO_FIX03 usually is finished by polishing the surface or can be left rough or coated with GEO_FIX07 without any polishing.

GEO_FIX07 can be used directly on the concrete floor, just removing the damaged surfaces

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# Industrial testing of KITS

**GeoFIX 03 – SCC GP CONCRETE** MAIN APPLICATIONS:

1. CONCRETE FLOORING REPAIRING IN WAREHOUSES OF CERAMIC TILES COMPANIES
2. HOLES FIXING BELOW CERAMIC FRITS KILNS (THERMAL SHOCK 1500°C – AMBIENT)
3. INTEGRAL REPLACING OF THE OLD OPC BASED REPAIRING MORTAR (R4 TYPE EN 1504) DUE TO COMPLETE DETACHMENT AFTER JUST ONE MONTH FROM APPLICATION
4. FINISHING: ROUGH OR POLISHED (TERRAZZO AESTHETIC EFFECT) OR COVERED BY GeoFIX 07
5. INDOOR AND OUTDOOR APPLICATION, WITH QUICK RETURN TO WORK

**GeoFIX 07 – SLU GP MORTAR** MAIN APPLICATIONS:

1. STRUCTURAL FINISHING LAYER ON CONCRETE FLOORING IN WAREHOUSES
2. SCRATCHES FIXING EVEN UNDER SEVERE THERMAL SHOCK CASES (1500°C – AMBIENT)
3. POSSIBLE TO BE COLORED WITH INORGANIC PIGMENTS AT VERY LOW DOSAGES (150-300% SAVING COMPARED TO OPC BASED FINISHING)
4. FINISHING MORTAR, SMOOTH SURFACE WITH SUPERIOR ABRASION RESISTANCE
5. INDOOR AND OUTDOOR APPLICATION, WITH QUICK RETURN TO WORK

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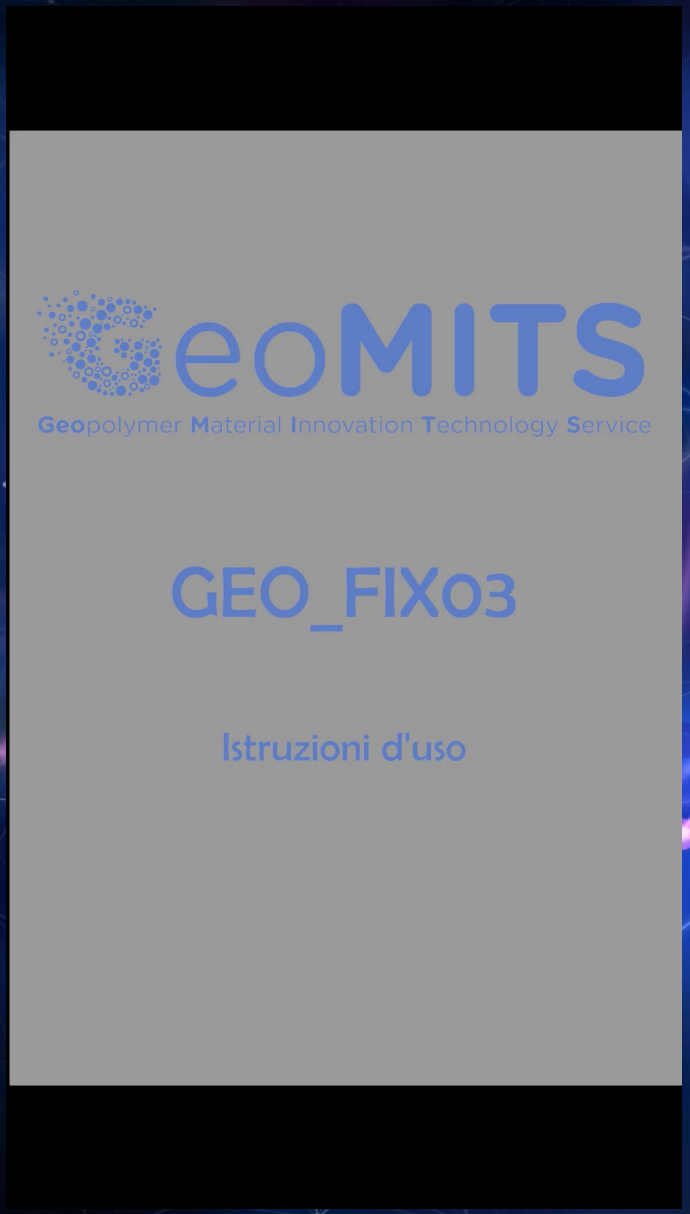
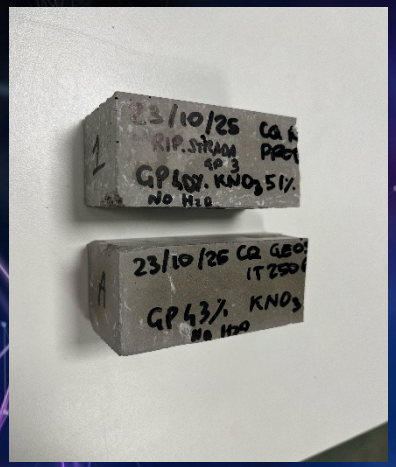
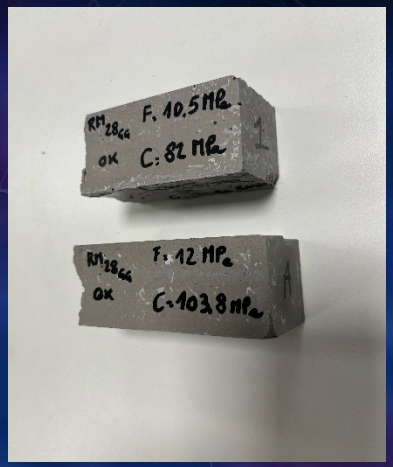
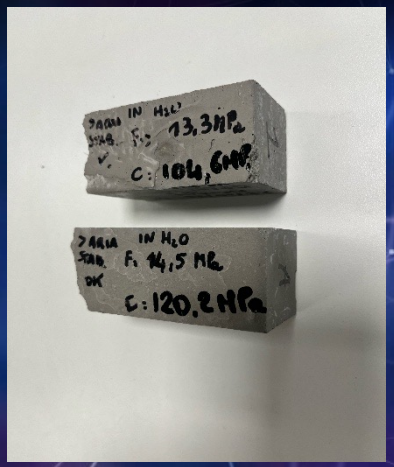
# Mixing method and mixing instructions

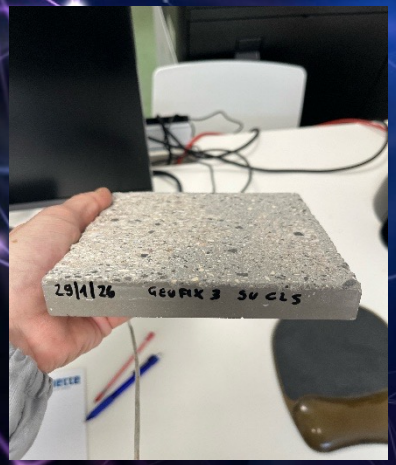


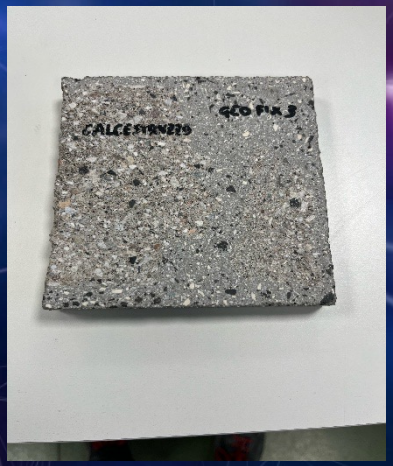
# Performances (Technical Data sheet): GeoFIX 03

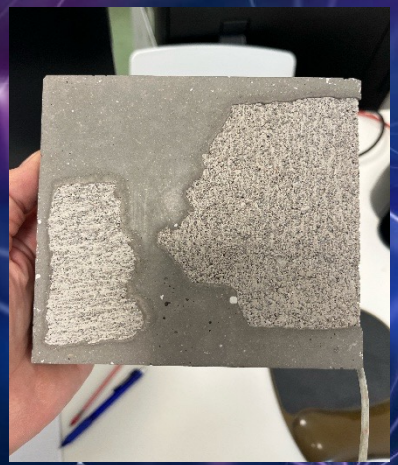


- **Color**: light brown grey
- **Pot life 23°C**: about 1 h
- **Hardening time**: about 3 h
- **Density**: 2,45 – 2,55 g/cm$^3$
- **R4 class according to EN 1504 norm**
- **Expansion/Shrinkage (in water): -0,01**

**MECHANICAL PROPERTIES**

**After 24 h:** F > 3 MPa, C > 30 MPa

**After 7 d:** F > 6 MPa, C > 60 MPa

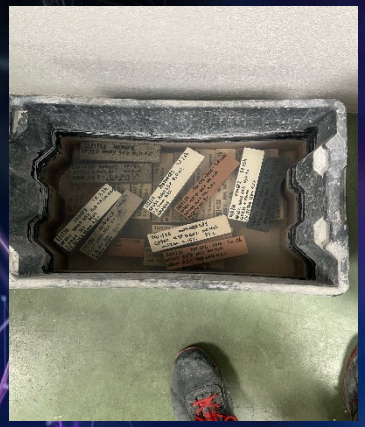
**After 28 d (air):** F > 8 MPa, C > 70 MPa

**After 28 d (water):** F > 9 MPa, C > 80 MPa

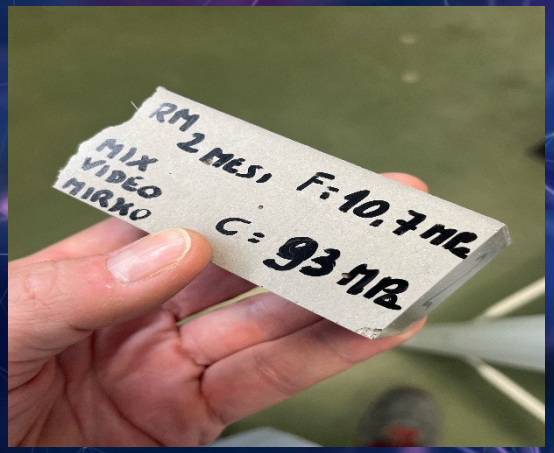
**After 56 d (air):** F > 10 MPa, C > 90 MPa

**E-module**: 26980 GPa

# Performances (Technical Data sheet): GeoFIX 03





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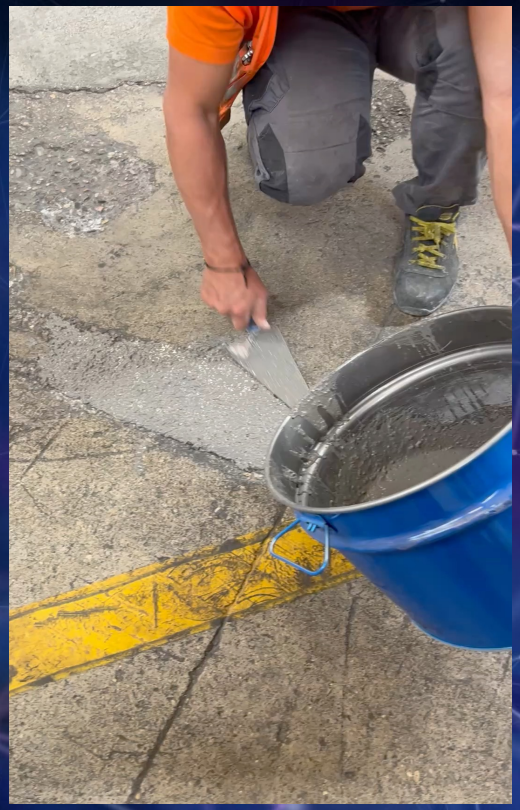
**After 56 d (air):** F > 10 MPa, C > 90 MPa

**E-module**: 26980 GPa (> 20 GPa)

# Industrial testing of KITS



SEPTEMBER 2025 – SICER SPA fixing holes from 1,5 TO 10 cm with GeoFIX 03 30 kg KIT

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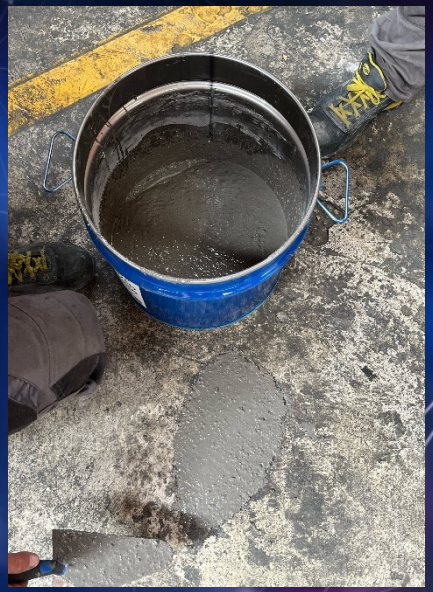
# Industrial testing of KITS

**GeoFIX 03** – fresh state, at 18°C at the job site pot life more than a hour, easy to be applied with standard tools. After the placing the material has been covered with plastic for at least 4 hours.

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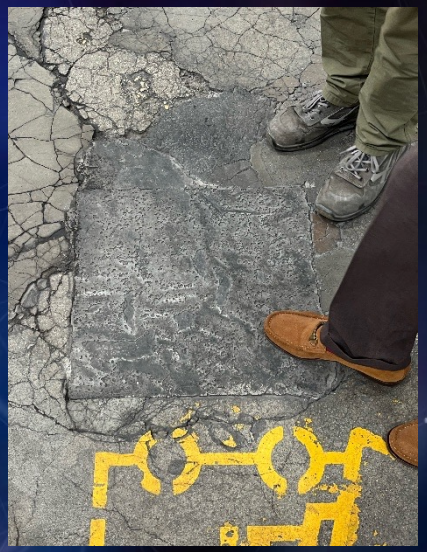
# Industrial testing of KITS





**GeoFIX 03** – Condensed state, at 18°C complete hardening after about 3 hours, pedestrian after 5-6 hours, open to hard traffic (fork lift and trucks) within 20-24 hours. Can be polished after 24-48 hours depending on the season.

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# Industrial testing of KITS

**GeoFIX 03** – Ceramic frits production area, strong thermal shocks on materials (high heat, high humidity due to the frits descharging directly in cold water after the fusion to create the typical ceramic glass flackes.

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# Industrial testing of KITS




**GeoFIX 07** – as finishing mortar on GeoFIX 03, on concrete with different thicknesses, easy to apply using standard tools.

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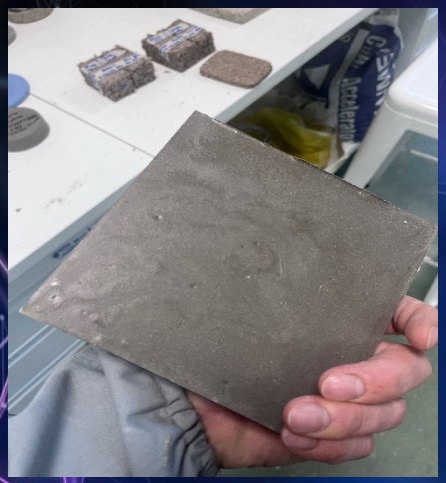
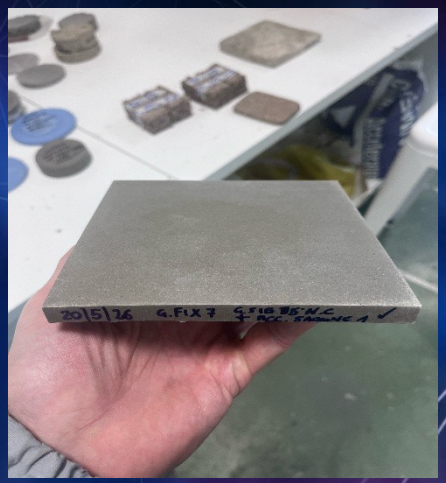
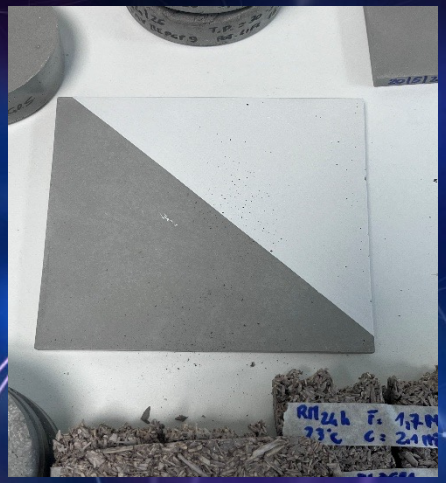
# Industrial testing of KITS





**GeoFIX 07** – for production of thin Geopolymer tiles, or cast in silicon mould, even colored by Geopolymer paint, adding standard inorganic pigment at very low dosage.

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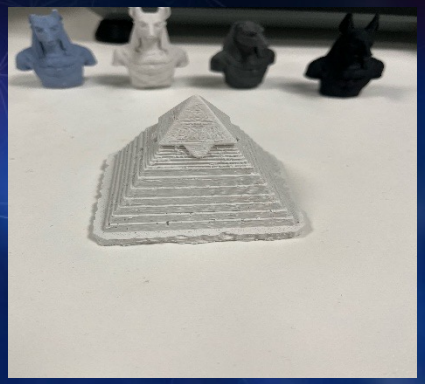
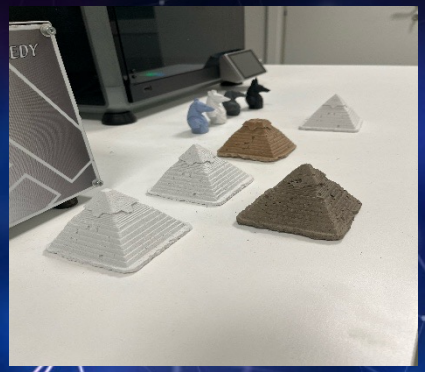
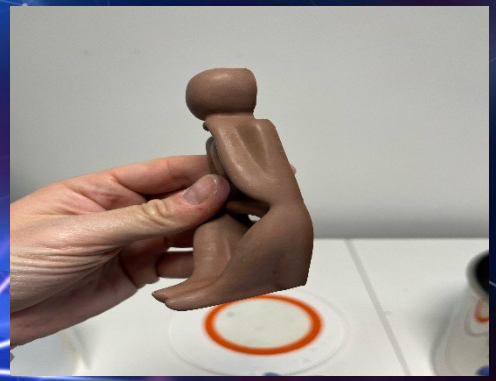
# Industrial testing of KITS



**GeoFIX 07** – for production of complex shapes in silicon mould, colored by mass with standard inorganic pigment at very low dosage (saving till 150-300% versus OPC based mortars)

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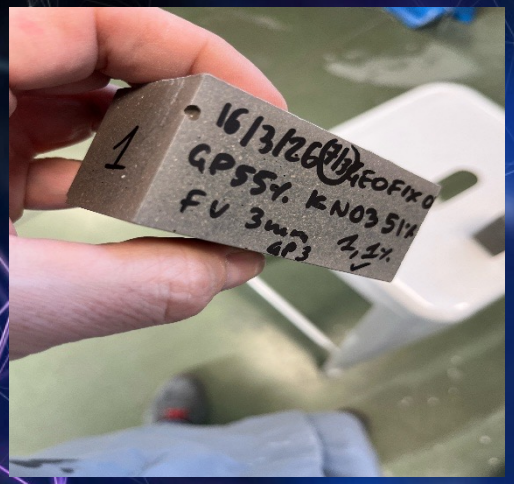
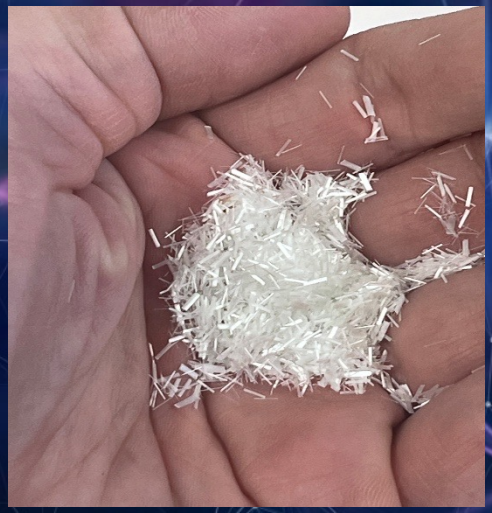
# Performances (Technical Data sheet): GeoFIX 07





- **Color**: light brown grey
- **Pot life 23°C**: about 40 minutes
- **Hardening time**: about 2 h
- **Density**: 2,25 – 2,35 g/cm$^3$
- **R4 class according to EN 1504 norm**
- **Expansion/Shrinkage (in water): -0,03**

**MECHANICAL PROPERTIES**

**After 24 h:** F > 5 MPa, C > 40 MPa

**After 7 d:** F > 8 MPa, C > 65 MPa

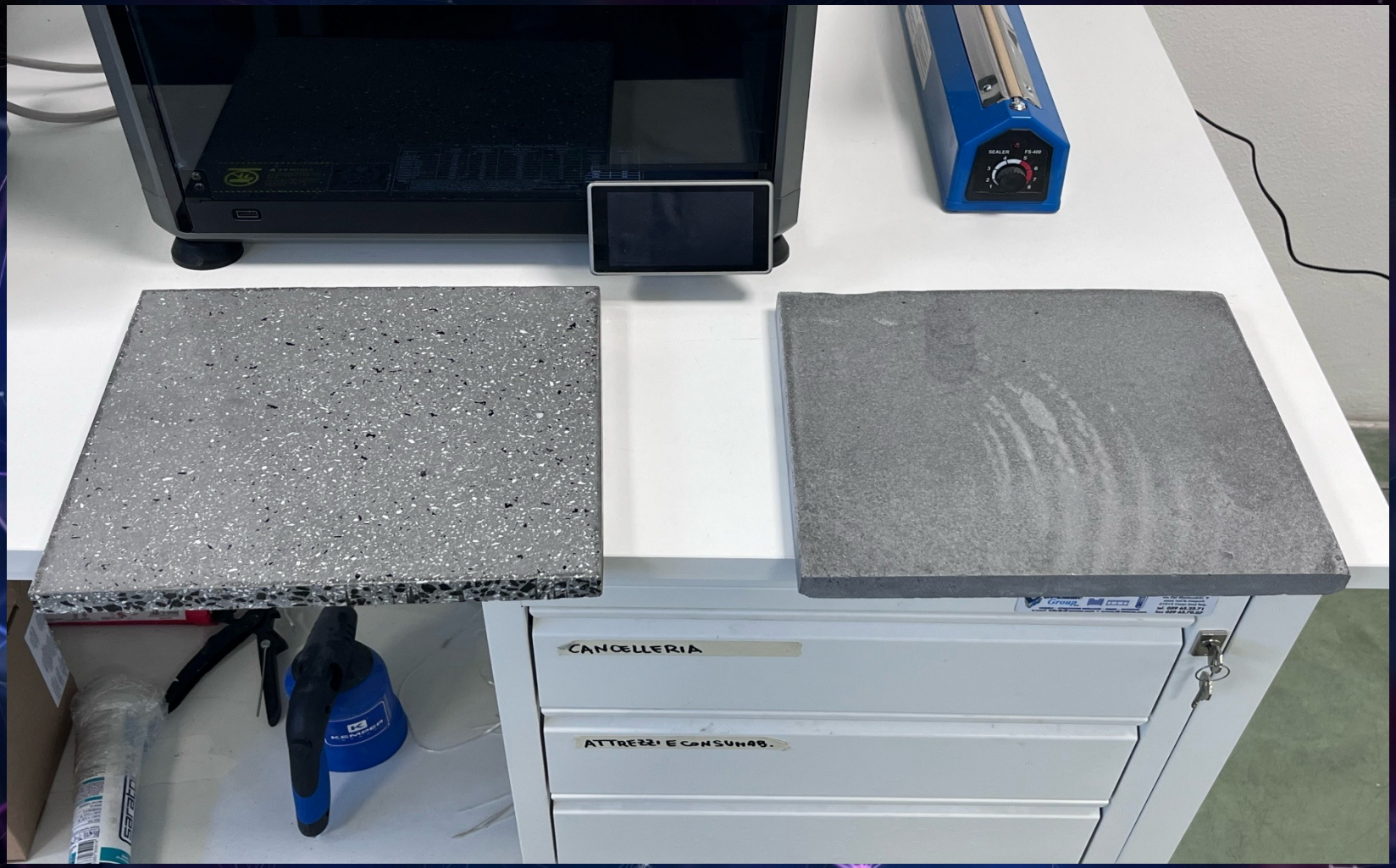
**After 28 d (air):** F > 10 MPa, C > 70 MPa

**After 28 d (water):** F > 10 MPa, C > 75 MPa

**After 56 d (air):** F > 10 MPa, C > 80 MPa

**E-module**: 24980 GPa

# THANKS FOR THE KIND ATTENTION

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