



Very  
High  
Durability  
Repair &  
Prevention  
System



Certified Quality System since **FEBRUARY 1993**

*From Project to Jobsite*

## BS 37 FPL – LIGHT

**LIGHT-WEIGHT FIBRE-REINFORCED POZZOLANIC MORTAR WITH HIGH DEFORMATION CAPACITY AND FRACTURE ENERGY**

CE approved – Certificate n. 1305 - CPD - 0808 ; EN 1504-3 Class R2

CE approved EN 998-1/OC – one layer mortar for external rendering

**R2**

EN 1504-3

NORMA EUROPEA

**Description** BS 37 FPL - LIGHT is a one-component mortar consisting of special hydraulic lime and highly reactive pozzolanic silica, synthetic microfibers with very high resistance, shrinkage reducing admixtures and for reduction of the water/binder ratio. Mortar with applied density about 1600 g/ litre.

**Advantages** Reduction of the weight of the lightweight fibre-reinforced mortar results in reduced weight increase and economy due to higher coverage of the mortar. The mortar has intrinsically superior breathability and insulation properties and increased ductility. Optimum workability and applicability as well manual as by spraying, excellent yield. The low elasticity modulus is accompanied by high flexural strength.

**Indicated use** For the Systems **HFE-tec® muratura** -High Fracture Energy Technologies for high fracture energy of masonry or ancient masonry in general, through the implementation of reinforcement with reinforced renders, with metal or glass fibre nets and connectors: higher capacity to fundamental energy dissipation in the event of an earthquake - an increase of ductility with no changes in shear stiffness of the structure. Plastering and also for various sealing of cracking.

**Method of use** Using efficient mixers, preferably with vertical axis, add gradually the powder to water (approx. 20% referred to the powder), mix for 5 minutes until a homogenous mix obtained, control density. With the increase of the mixing time, the weight decreases and vice versa. Once the optimum mixing time obtained, reproduce always in the same conditions. Prepare a clean substrate, saturated with water before application. For particularly weak substrates, for the best adhesion, use a proper sand-cement key-coat.

**Packaging Technical characteristics (typical values)** Bags of 25 Kg on pallet.

Complies to EN 1504-3 :	<b>R2</b>
• Mixing water approx.	20%
• Workability time	60 minutes
• Compressive strength 28 days	> 20 MPa
• Flexural strength 28 days	> 8 MPa
• Modulus of elasticity	12.000 MPa
• Adhesion to brick and concrete 28 d.	> 1,5 N/mm <sup>2</sup>
• Fracture Energy	3500 N/m
• Vapour permeability	μ 35
• Consumption	1,5 Kg/m <sup>2</sup> /mm
• Thermal insulation properties λ	0,73 W/mK

**Safety instructions for preparation and application** The product contains cement based components, lime or hydrated lime which, during the preparation and application may cause irritation in contact with skin and eyes. Use gloves and protective goggles. Material Safety Data Sheet available on request.

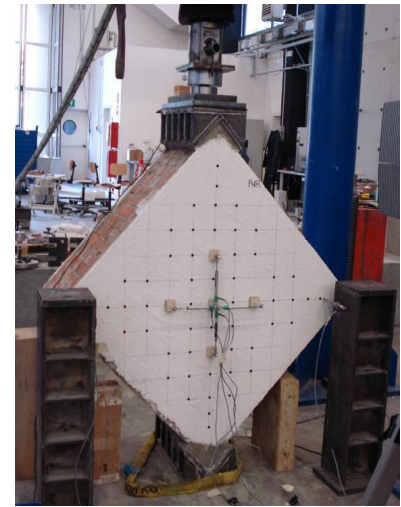
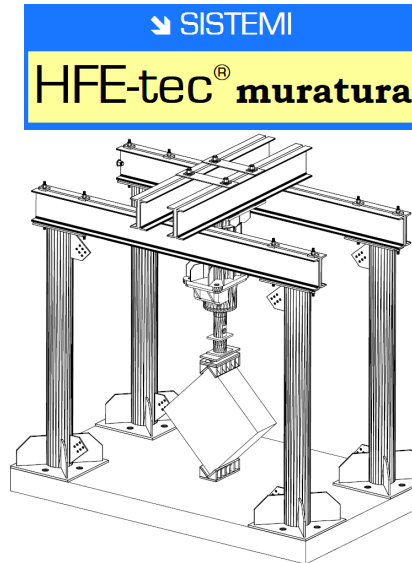
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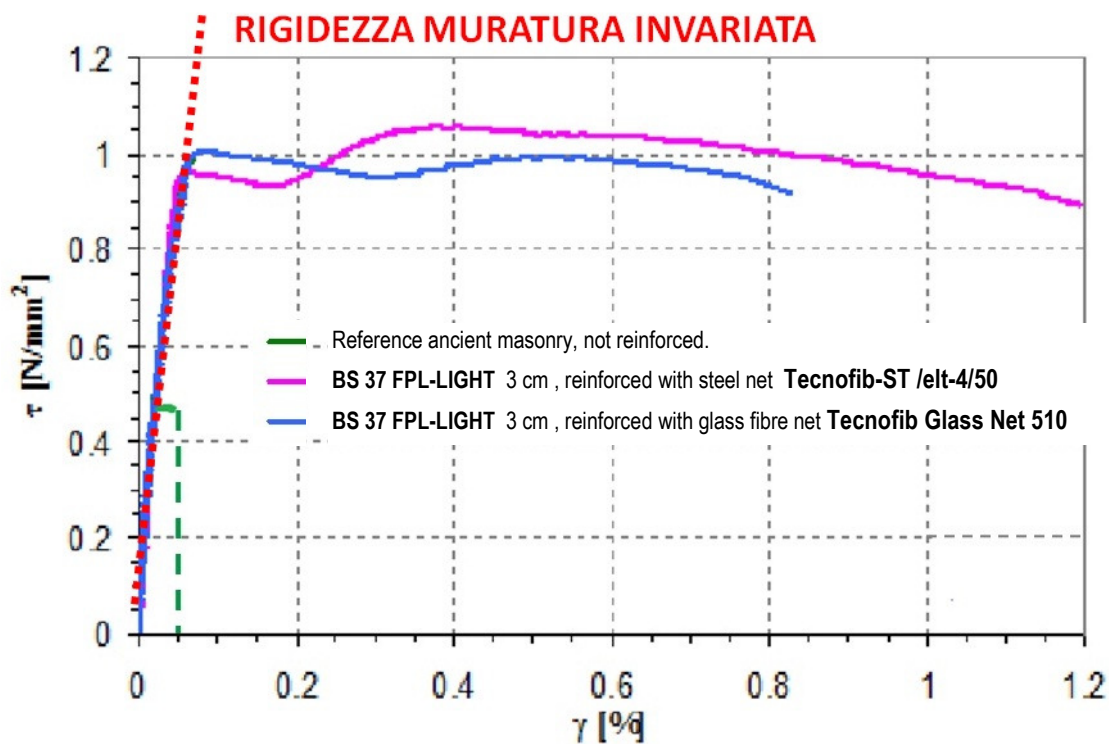
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## From Project to Jobsite



Determination and measurement of diagonal compression of masonry with fibre reinforced rendering mortar, high deformation energy **BS 37 FPL - LIGHT**, reinforced with steel or glass fibre net : Systems **HFE-tec® Muratura** (Measurement samples tested: 100 cm x 100 cm x 40 cm), 3 cm thick rendering.



SHEAR STRESS – SHEAR STRAIN DIAGRAM

The above data are based on our actual and most experienced practical and laboratory knowledge and the results are collected from application of the product in different situations. Tecnochem Italiana does not assume any responsibility regarding inadequate or negative performance as a result of improper use of the product or for defects deriving from factors or elements other than the quality of the product including improper storage. The technical characteristics and performance mentioned in this datasheet are updated periodically. The revision dates and number of revision of the datasheets are listed in the table below. Eventual variations are traceable on our website [www.tecnochem.it](http://www.tecnochem.it) where the most updated datasheets can be retrieved.