Advanced Pavement Systems

From Project to Jobsite

Certified Quality System since **FEBRUARY 1993**

RAPI-tec® pva /pav - *FIB-energy® MC 310/15*

EN 1504-3 R4 NORMA EUROPEA

MORTAR WITH VERY FAST HARDENING WITH EXCEPTIONAL VOLUMETRIC STABILITY

CE approved – Certificate n. 1305 - CPD - 0808
EN 1504-3 Class R4

Description **RAPI-tec® pva/pav - *FIB-energy® MC 310/15*** is a rapid hardening mortar for local structural applications and repair of pavements. The high modulus polymer fibres FIB-energy® contained allow a deformation capacity 10 times greater than special standard mortars standard.

Advantages **RAPI-tec® pva/pav - *FIB-energy® MC 310/15*** combines a sufficient workability time (about 20 minutes) with a very rapid hardening response (24 MPa in 3 hours), shrinkage zero, exceptional deformation with no cracks, very high mechanical resistance, a flexural strength >15 MPa, optimal durability, resistance to sulphate attacks.

Application **RAPI-tec® pva/pav - *FIB-energy® MC 310/15*** is used wherever a fast opening to traffic or exercise is required after application: for the rapid repair of concrete floors in general for taxi- or airport traffic areas, roads, infrastructure, installation and fixing of manhole covers etc..**On request a THIXO version can be formulated.**

Method of use

- The substrate must be prepared by mechanical scarified or hydro-scarified for a depth not inferior to 1 cm. In case of local repair, cut with flexible grinding wheel the borders at right angle.
- No traces of fat, grease, oils, or detergents
- The tensile strength of the support must be ≥ 1,5 N/mm^2; in case of lower strengths use the primer **TECNOEPO 400** or, in extreme cases, prepare proper pre-sealed steel bars and mesh.
- The substrate must be clean, rough, and without friable parts, dust, and should be saturated with water thoroughly prior to starting the application. Saturate the substrate with water before application and eliminate any excess of water on the surface. In case of use of the primer **TECNOEPO 400** the substrate must be dry ($H_2O \leq 4\%$)
- Temperature of application between +5 and +35°C
- Use a mixer with vertical axes or horizontal mixer with double heliotrope mixing arms
- Mix the powder with potable water till a homogeneous mix is obtained. Mixing time: about 2 minutes with high efficiency mixer.
- Add FIB-energy® fibres slowly. The mixing continues till the fibres are completely uniformly dispersed in the mortar. Mixing time: about 2 minutes.
- In case of high volumes (like for repair of man-holes) use a vibrating needle or tap intensively for compaction. To level larger areas, a vibrating ruler can be used.
- The surface, after application, needs protected by a polyethylene sheet or curing compound (UR19, in case no other protective of aesthetical treatment is foreseen)
- Cut the joints after 24 hours.

Packaging for 25,25 Kg.

To mix with 2,7÷3 lt water

comp. **A**	POWDER **in bag**	**25 Kg**
comp. **B**	fibre FIB-energy® MC 310/15 **in small bag**	**0,25 Kg.**
	Tot. Packaging =	**25,25 Kg.**

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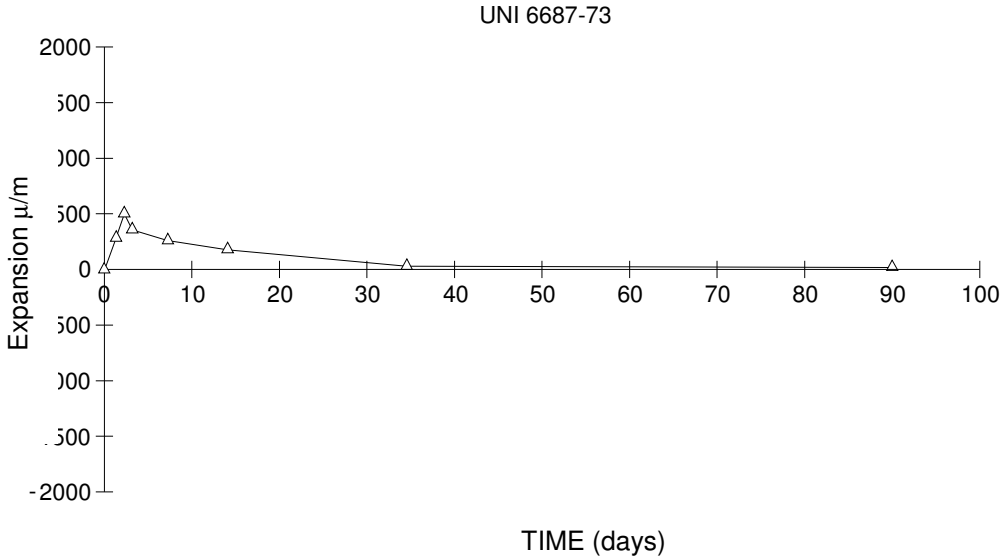
Technical characteristics (typical values)

• Max size quartz	3 mm
• Initial setting time at 20°C	25 minutes
• Final setting time at 20°C	30 minutes
• Consumption	2,1 Kg/mm/m^2
• Compressive strength 3 hours	24 MPa
• Compressive strength 28 days	68 Mpa
• Flexural strength 28 days	16 Mpa
• Elasticity modulus 28 days	34,0 Gpa
• Fracture Energy 28 days	~ 500 N/m
• Adhesion to support (concrete)	≥ 2 N/mm^2
• Resistance to freezing and thawing in presence of chloride salts (Swiss Highways SIA 162 Standard : after 28 cycles ≤ 600 gr/m^2 → high resistance to freezing and thawing in presence of salts)	≤ 120 gr/m^2
• Linear expansion at T=20°C R.H.= 50% (UNI EN 12617-4 / UNI 6687-73)	+ 450 µ/m a 24 h + 20 µ/m a 90 days

RITIRO ZERO

UNI 6687-73



Remark Information according 2003/53/CE:
Storage: product can be kept for 6 months if stored in dry and protected conditions in the original packaging, at a temperature between +5°C and +35°C. Do not use the content of opened bags if there are lumps. Avoid freezing of the liquid component.

Remarks Read carefully the instructions on the packaging and eventually ask us the Safety Data Sheet of the product.

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