

*From project to jobsite*

## RAPI-tec<sup>®</sup> pva/pav - MASSETTO

**MORTAR WITH VERY FAST HARDENING FOR SCREEDS WITH EXCEPTIONAL VOLUMETRIC STABILITY**

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

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

**Advantages** RAPI-tec<sup>®</sup> pva/pav-MASSETTO combines a sufficient workability time (about 20 minutes) with a very rapid hardening response (20 MPa in 3 hours), shrinkage zero, exceptional deformation with no cracks, very high mechanical resistance, a flexural strength  $\geq 14$  MPa, optimal durability, resistance to sulphate attacks.

**Application** RAPI-tec<sup>®</sup> pva/pav-MASSETTO 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..

- Method of use**
- The substrate must be prepared by mechanical scarified or hydro-scarified for a depth not inferior to 5 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  $\geq 1,5$  N/mm<sup>2</sup>; in case of lower strengths, install properly fixed 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.
  - Temperature of application between +5 and +35°C
  - Use a mixer with vertical axes or horizontal mixer with double heliotrope mixing arms.
  - The component A + component B are mixed with drinking water: initial addition of 2 liters (3%) per pack and then add water gradually, mixing until it becomes suited for casting (S5-Slump 25 cm approx.). Mixing time: about 2 minutes with high efficiency mixer.
  - Add FIB-energy<sup>®</sup> fibres slowly. The mixing continues till the fibres are completely uniformly dispersed in the mortar. Mixing time: about 2 minutes.
  - Use a vibrating needle or tap intensively for compaction. Level larger areas by vibrating ruler.
  - 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.

**Remark** Information according to 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.

**Packaging** Component A - powder = 17 Kg  
Component B – sand and additives = 60 Kg  
Component C – polymer fibres FIB-energy<sup>®</sup> = 0,55 Kg

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### Technical characteristics (typical values)

• Max size quartz	9 mm
• Initial setting time at 20 °C	25 minutes
• Final setting time at 20 °C	30 minutes
• Density	2,3 Kg/litro
• Compressive strength 3 hours	20 MPa
• Compressive strength 28 days	66 MPa
• Flexural strength 28 days	14 MPa
• Elasticity modulus 28 days	35,0 GPa
• Fracture Energy 28 days	~ 500 N/m
• Adhesion to support (concrete)	≥ 2 N/mm <sup>2</sup>
• Resistance to freezing and thawing in presence of chloride salts (Swiss Highways SIA 162 Standard : after 28 cycles ≤ 600 gr/m <sup>2</sup> → high resistance to freezing and thawing in presence of salts)	≤ 120 gr/m <sup>2</sup>
• Linear expansion at T=20 °C R.H.= 50% (UNI EN 12617-4 / UNI 6687-73)	+ 250 μ/m at 24 h + 15 μ/m at 90 days

### Use of the product without FIBRES

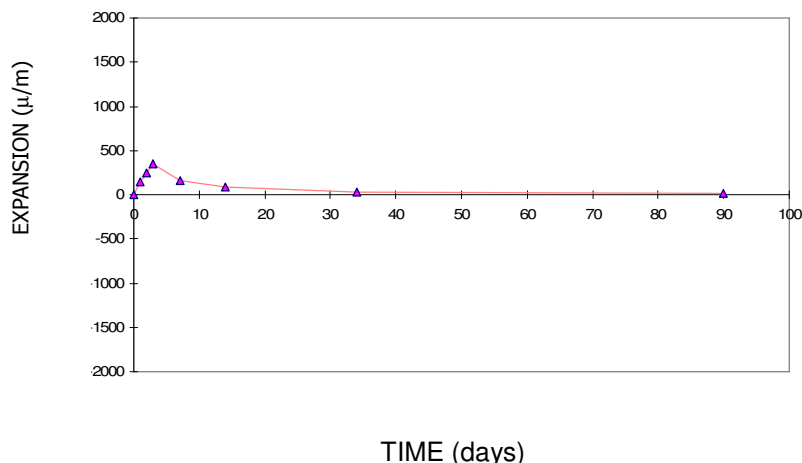
At the discretion of the applicator, for non-high stress applications, the product can also be used without fibres. In particular, the flexural strength is then reduced to 9÷10 MPa, the fracture energy to 200 N/m and the shrinkage is positioned on 350 μ/m, however, still exceptional values when referring to the best products on the market.

### Remarks

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

### ZERO SHRINKAGE

UNI 6687-73



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.