

New Product Development

99.616-E3
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Aquapas™ N2090 **Redispersible Polymer Powder**

Description

The redispersible powder Aquapas™ N2090 is a copolymer of vinyl acetate and ethylene. It is a free-flowing powder that readily disperses in water.

Product data

Polymer type	:	vinyl acetate-ethylene copolymer
Appearance	:	free-flowing, white powder
Protective Colloid	:	polyvinyl alcohol
Solids content	:	98 - 100%
Ash content	:	8 - 12%
Bulk density	:	400 - 550 g/l
Tg (onset)	:	-15 °C (+/-5 °C)
Minimum film forming temperature	:	0 °C

Application

Aquapas™ N2090 is used to promote adhesion and flexibility under a wide variety of climate conditions. Aquapas™ N2090 was especially developed for thermal insulation mortars where superior adhesion to substrates is needed. Furthermore it shows universal properties as it can be used widely in other dry-mortar applications (e.g. tile cement, repair-mortars, skim coat) to reach enhanced product properties. In addition to improving adhesion, all formulations gain additional benefits by the use of Aquapas™ N2090. The open time and pot life is prolonged depending on formulation design and dosage level. Workability can be influenced positively in combination with suitable other additives (Culminal® C-series cellulose ethers). In EIFS application the use of Aquapas™ N2090 helps to pass the EOTA requirements - depending of dosage level and formulation design as demonstrated in the following charts.

(over)

Chart 1 – Formulation design

Test results: <i>Mortar composition (EIFS)</i>	
<u>Thermal insulation adhesive mortar</u>	<u>Components</u>
20.00%	CEM I 42,5 R
4.00%	Hydrated lime
53.00%	Sand F 34
23.00%	Sand 0.5 – 1mm
0.12%*	C 9111
0.10%*	Silipon RN 6031
2,00% / 4,00%*	RDP
* on top of formulation	

Chart 2 – Fresh mortar properties – subjective impression

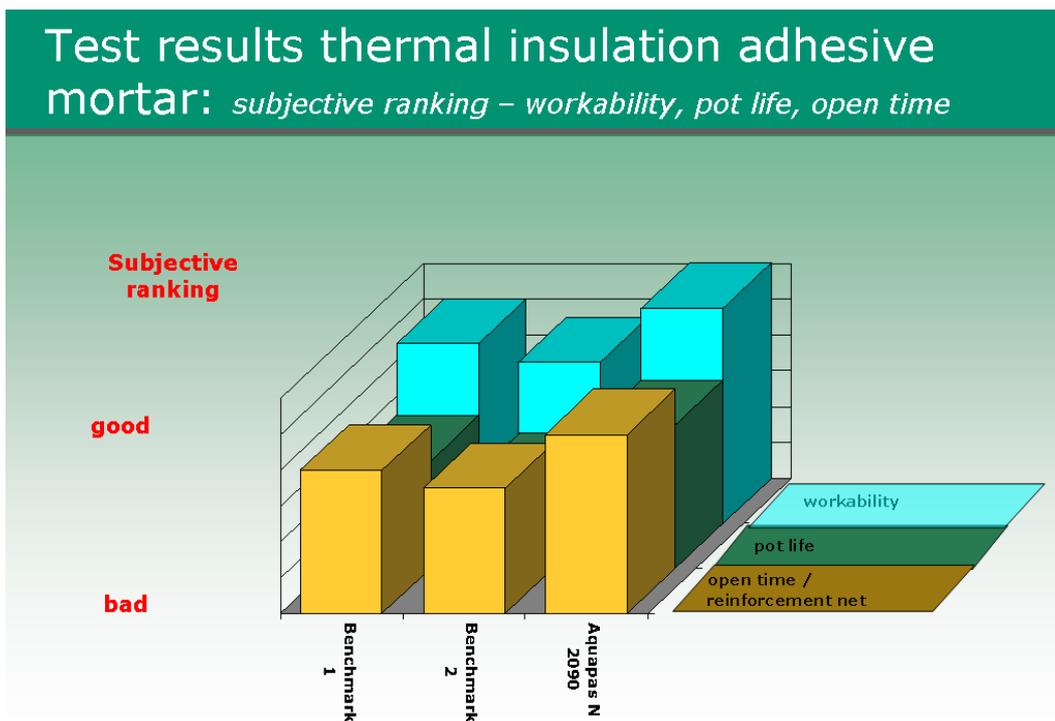
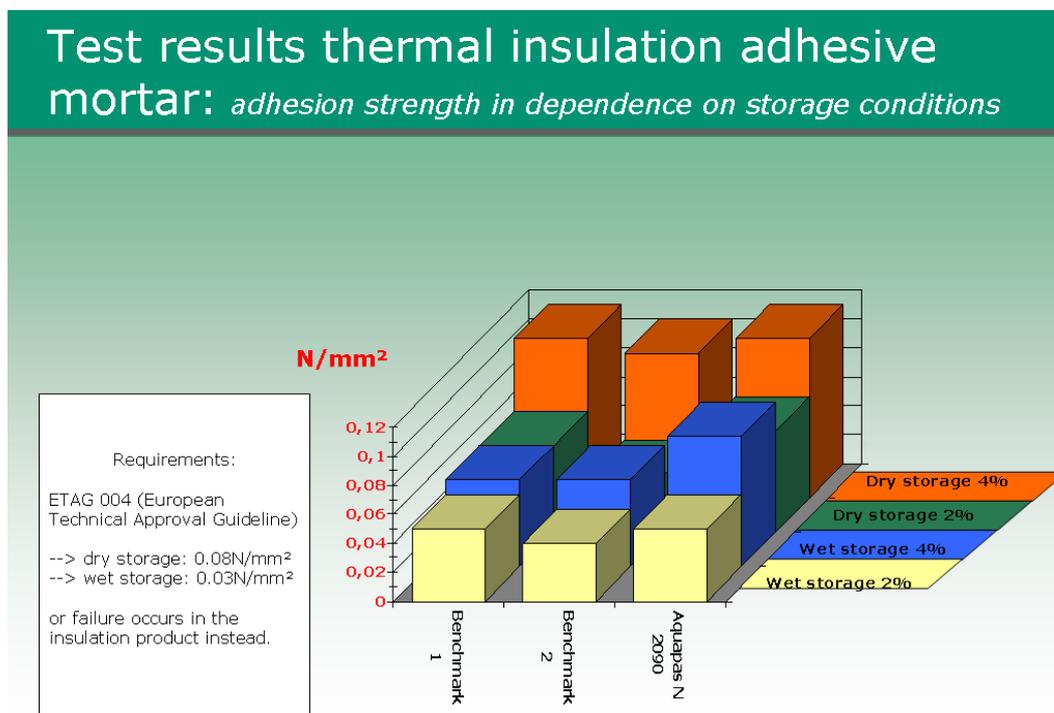


Chart 3 – Adhesion strength depending on dosage level and storage condition



Processing

In the production of ready-mixed powders, Aquapas™ N2090 should be blended with other dry ingredients in appropriate mixers. Care should be taken to not allow temperature to rise excessively, or the polymer powder could agglomerate into lumps.

The powdered end products are mixed with water at the jobsite. An extra 5 minutes of maturing time may be needed if the products are hand mixed to allow the polymer powder to fully disperse. Alternatively, Aquapas™ N2090 is suitable for machine application, as verified in several lab and construction site tests.

Storage

Aquapas™ N2090 should be stored in a cool place and protected from moisture. Exposure to high temperature or humidity will increase the chance of caking. The product should be used within 6 months of receipt. Any opened bags should be resealed in a moisture proof container to prevent caking. Pallets should not be stacked or put under pressure to prevent caking.

Safety

Please refer the MSDS for complete safety information.