

# TECHNICAL DATA SHEET



**RAKAM**



**102**

**RAK TILE FIX**

(Tile Adhesive)

**RAK 102** is a ready mix cement based tile adhesive. It is composed of grey or white colour powder and does not contain fiber, asbestos or any other harmful components.

ADVANTAGES	INSTRUCTIONS FOR USE																																					
<ul style="list-style-type: none"> <li>High bond strength</li> <li>Water resistant</li> <li>Economical</li> <li>Eco-friendly</li> <li>Tropical grade</li> <li>Formulated to suit Middle East conditions</li> </ul>	<p><b>Surface Preparation</b></p> <p>All surfaces should be sound, clean &amp; uncontaminated. This preparation should leave an exposed concrete surface free from dust, loose particles, deleterious matter, oil, grease, chemical films &amp; other contaminant.</p> <p>All loose particles of mortar, paint, etc. must be physically removed.</p> <p>Concrete or blockwork: allowed to cure sufficiently so that all shrinkage movements take place before fixing tiles.</p> <p>Gypsum supports: treat with RAK BOND PVA 304. Should not have a percentage of humidity more than 10%.</p> <p>The surface of substrates must be moistened slightly with clean water to reduce the absorption of water from the mortar. Do not moistened the tiles.</p>	<p>Place the tiles onto the adhesive bed. Apply sufficient pressure on the tile during fixing it with slight twisting movement in order to ensure good contact with the adhesive.</p> <p>In case of large size tiles, it is necessary to spread the adhesive also to the backside of the tile and then place the tiles into the adhesive bed.</p> <p>Apply enough material that can be tiled during the adhesive's open wet time. Spreading large areas may result in drying the adhesive before tiles can be fixed causing poor adhesion.</p>																																				
<p><b>USES</b></p> <p>RAK 102 is used for permanent fixing of ceramic tiles for internal applications.</p> <p>It may be suitable for use in :</p> <ul style="list-style-type: none"> <li>Kitchens</li> <li>Bathrooms</li> <li>Regular Rooms</li> </ul>	<p><b>MIXING</b></p> <p>Place 4.0 – 5 liters of cold, potable water in the mixing bucket and add slowly 20 kg bag of RAK 102 under continuous mixing till a uniform lump free consistency mix is achieved. For mixing process, a slow speed drill (200- 300rpm) fitted with a suitable paddle is recommended.</p> <p>Allow the obtained mix to stand for about 5 minutes and then remix before application.</p>																																					
<p><b>TECHNICAL PROPERTIES</b></p> <table border="1"> <thead> <tr> <th>Properties</th> <th>Result</th> </tr> </thead> <tbody> <tr> <td>Appearance</td> <td>Powder</td> </tr> <tr> <td>Color</td> <td>Grey or White</td> </tr> <tr> <td>Dry Density</td> <td>1.55 kg/L</td> </tr> <tr> <td>Wet Density</td> <td>1.70 kg/L</td> </tr> <tr> <td>VOC</td> <td>3.4 g/L</td> </tr> <tr> <td>Water resistance</td> <td>excellent</td> </tr> <tr> <td>Open Time</td> <td>Approx. 15 minutes</td> </tr> <tr> <td>Workable Time</td> <td>20 minutes</td> </tr> <tr> <td>Wall Grouting</td> <td>After 10 hours</td> </tr> <tr> <td>Floor Grouting</td> <td>After 24 hours</td> </tr> <tr> <td>Ready to Use</td> <td>After 14 days</td> </tr> <tr> <td>Shear Strength (ANSI 118.1)</td> <td>&gt;0.85 N/mm<sup>2</sup></td> </tr> <tr> <td>Adhesion Strength (EN 1348)</td> <td></td> </tr> <tr> <td>Initial adhesion at 28 days</td> <td>0.95 N/mm<sup>2</sup></td> </tr> <tr> <td>Adhesion after heat</td> <td>0.75 N/mm<sup>2</sup></td> </tr> <tr> <td>Adhesion after water immersion</td> <td>0.70 N/mm<sup>2</sup></td> </tr> <tr> <td>Adhesion after Freeze-thaw cycle</td> <td>1.00 N/mm<sup>2</sup></td> </tr> </tbody> </table> <p>All values are subject to 5-10 % tolerance</p>	Properties	Result	Appearance	Powder	Color	Grey or White	Dry Density	1.55 kg/L	Wet Density	1.70 kg/L	VOC	3.4 g/L	Water resistance	excellent	Open Time	Approx. 15 minutes	Workable Time	20 minutes	Wall Grouting	After 10 hours	Floor Grouting	After 24 hours	Ready to Use	After 14 days	Shear Strength (ANSI 118.1)	>0.85 N/mm <sup>2</sup>	Adhesion Strength (EN 1348)		Initial adhesion at 28 days	0.95 N/mm <sup>2</sup>	Adhesion after heat	0.75 N/mm <sup>2</sup>	Adhesion after water immersion	0.70 N/mm <sup>2</sup>	Adhesion after Freeze-thaw cycle	1.00 N/mm <sup>2</sup>	<p><b>APPLICATION</b></p> <p>Spread RAK 102 on the substrate to a uniform thickness using a toothed spatula, the first pass with its straight edge and the second pass immediately after, to the desired thickness of RAK 102 using the toothed part.</p>	<p><b>FINISHING</b></p> <p>Remove excess adhesive with a damp cloth before it dries. Joints grouting between tiles may be commenced after 10 hours of tiling for walls and 24 hours for floors.</p>
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		<p><b>CLEANING</b></p> <p>Tools and equipment should be cleaned with water immediately after use. Hardened materials should be mechanically removed.</p>																																				
		<p><b>RECOMMENDATIONS</b></p> <ul style="list-style-type: none"> <li>The grey type presents higher mechanical resistances. It is therefore advisable to use to fix tiles on floor</li> <li>Stiffened mortar must neither be diluted with water nor with fresh mortar</li> </ul>																																				



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<ul style="list-style-type: none"> <li>Do not use RAK 102 on metal or non-absorbing surfaces.</li> <li>Do not apply RAK 102 in rainy weather, high winds and sand storms</li> <li>Do not apply under direct sun</li> <li>Keep equipment cool and use cold water</li> <li>Porosity of tiles and substrates has significant effect on adhesive strength of tile</li> </ul>	<p><b>CONSUMPTION</b></p> <p>Approx. 4 to 4.5 kg RAK 102 per m<sup>2</sup> using notched trowel on smooth surface. Consumption will vary according to type of tiles and support condition.</p>	<p><b>HEALTH &amp; SAFETY</b></p> <p>RAK 102 can be harmful to skin as it contains cement powders which may releases alkalis when mixed with water.</p> <p>During application, wear appropriate protective clothing, goggles, gloves and respiratory equipment if necessary.</p> <p>In case of contact with skin, rinse with water and again wash thoroughly with soap and water. In case of contact with eyes, rinse with plenty of water and seek medical advice accordingly.</p> <p>If ingested, obtain medical attention immediately. Do not induce vomiting.</p>								
<p><b>APPLICABLE STANDARDS</b></p>	<p><b>STORAGE</b></p> <p>Store in dry covered place in the original closed bags and shelf life is 12 months if stored as recommended.</p>									
<ul style="list-style-type: none"> <li>EN 12004</li> <li>ISO 13007</li> <li>ANSI A 118.1</li> <li>EN 1346</li> <li>EN 1348</li> <li>ANSI A 118.4 (when mixed with RAK BOND PVA)</li> </ul>	<p><b>ORDERING GUIDE</b></p> <table border="0"> <tr> <td>PRODUCT NO.</td> <td>102</td> </tr> <tr> <td>STANDARDS</td> <td>ASTM-C-190</td> </tr> <tr> <td>PACKAGING</td> <td>20kg Plastic &amp; Paper Bags</td> </tr> <tr> <td>COLOR</td> <td>White / Grey</td> </tr> </table>		PRODUCT NO.	102	STANDARDS	ASTM-C-190	PACKAGING	20kg Plastic & Paper Bags	COLOR	White / Grey
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