

# Kemgrout UW

Underwater Cement Base Grout

Description	<p><b>Kemgrout UW</b> is a cement base grout that contains additives that provides positive expansions in the plastic phase and it is formulated to insure resistance to washing out of the cement when placed in stationary or moving water.</p> <p>It complies with BS 1881</p>
Where to use	<ul style="list-style-type: none"> <li>• It is used in pumped grouting applications underwater or in tidal zones</li> <li>• Bridge columns, wharf piles , concrete piles , slipways, and dams</li> </ul>
Advantages	<ul style="list-style-type: none"> <li>• High early-age strength development</li> <li>• Noncorrosive, nontoxic</li> <li>• High ultimate strength</li> <li>• Displaces water effectively</li> <li>• Resistant to washing - out of cement when placed under water</li> </ul>
Properties	
Wet density	2300 Kg/m <sup>3</sup>
Application temperature	+5 to +30 °C
Compressive strength	40 MPa (after 28 days)
Surface Preparation	<ul style="list-style-type: none"> <li>• Concrete surfaces must be sound, and free from oil, grease, or any loosely adhering material</li> <li>• If the concrete surface is defective or has laitance, it must be cut back to a sound base</li> <li>• Bolt holes or fixing pockets must be blown clean of any dirt debris</li> <li>• Metal surfaces must be free from rust, scale, oil, or grease</li> <li>• Rust traces must be removed either by mechanical means (e.g. abrasives) or by a suitable rust remover</li> <li>• The undersides and edges of the steel plate should then be cleaned from oil and dirt then protected with <b>Kemkleen</b> to prevent rust formation and ensure bonding with <b>Kemgrout UW</b> for best results, mix thoroughly before each use</li> </ul> <p><b>Formwork preparation:</b></p> <ul style="list-style-type: none"> <li>• Formwork must be constructed to prevent any leak of the plastic grout</li> <li>• Formwork must be constructed in a manner to insure a minimum horizontal surface area is left exposed</li> <li>• Formwork must be constructed to be able to confine the grout during its expansion process</li> <li>• Ensure that all formwork has been thoroughly treated with <b>Kemrel</b> a mold release agent</li> <li>• In areas of formwork where air pockets may occur it is necessary to install openings that allow entrapped air to escape.</li> <li>• It might be necessary to install grouting tubes that enables the cavity to be filled from bottom to top</li> </ul>
Mixing	<ul style="list-style-type: none"> <li>• The quantity of water required to achieve the desired consistency and volume used should be in accordance with the following: 5.5 - 6.5 liters /25 Kg sacks, depending on the temperature of water</li> <li>• For best results, a mechanically powered grout mixer should be used</li> <li>• The selected water content should be accurately measured in the mixer</li> <li>• To obtain a smooth consistency the cement should be blended slowly into the liquid</li> </ul>

Application	<ul style="list-style-type: none"> <li>Place the grout immediately after mixing to insure no air is trapped</li> <li><b>Kemgrout UW</b> may be placed in thickness up to 180 mm in a single pour - underwater</li> <li>When grout is being placed under water insure that the end of the hose is kept within the grout being placed</li> <li>The hose can be raised during the pouring to reduce any back pressure but should not be raised above the level of the grout</li> </ul>
Theoretical coverage	2300 Kg/ m <sup>3</sup>
Packaging	<b>Kemgrout UW</b> is supplied in 25 Kg sacks
Shelf life & Storage	<b>Kemgrout UW</b> has a shelf life of 12 months if kept in sealed bags in dry place
Cleaning	<ul style="list-style-type: none"> <li>Clean all tools and equipment with water immediately after use</li> <li>Hardened grout can only be removed mechanically</li> </ul>
Curing	<ul style="list-style-type: none"> <li>In above ground applications, once formwork is removed the use of curing compound <b>Kemcure W</b> should be applied to any exposed phases</li> <li>Formwork should be left in place for at least 5 days to prevent moisture escaping</li> </ul>
Health and Safety	<ul style="list-style-type: none"> <li>Use goggles, gloves and breathing mask when applying</li> <li>Apply forced ventilation in confined spaces</li> <li>Skin splashes to be removed with hand cleaner, soap and water</li> <li>Eye splashes to be washed with plenty of water and seek for medical advice</li> <li>If ingested seek medical advice</li> <li>Do not smoke during use</li> </ul>
Additional Information	<p><b>PROKEM</b> provides the construction industry with a comprehensive range of construction chemicals and specialty products answering the queries of modern engineers for trouble free durable structure</p> <p><b>PROKEM</b> designs tailor made products should there be critical application that requires specific properties rather than our main range. For our customer's satisfaction</p> <p><b>PROKEM</b> reserves the right to change the properties of its products</p> <p>All orders are accepted subject to our current term of sale &amp; delivery</p> <p>Users must always refer to the most recent issue of the local product data sheet for the product concerned, copies of which will be supplied on request</p> <p><b>PROKEM</b> extends technical services to include after-sales support to assist users in the proper handling of our products</p>