

Product	Ultra Low Strength	Standard Strength	Ultra High Strength
<b>Description</b>	An ultra low strength grout which has the characteristics of a stiff clay when set. Used for underbase grouting of gravity-based structures and pipeline tunnel filling, where soil-like properties are required. The low specific gravity of the mix means that large volumes can be produced using small cement quantities.	The original industry standard grout commonly used for grouting platform main legs, where ultra high strengths are not required. Can be injected using conventional displacement or pressure grouting techniques. Also used for filling fabric formwork pipeline supports.	Ultra high strength grouts are used for offshore wind turbine foundations which require grout strengths of 100 MPa or greater. They are also used for member filling of aging or damaged offshore platforms to improve member strength and increase its life expectancy.
<b>Mean Strength* at 8°C at 28 days MPa</b>	0.5 - 2	55 - 80	95 - 110
<b>Mean Strength* at 20°C at 28 days MPa</b>	0.5 - 2	55 - 80	> 135
<b>Mean Strength* at 28 days PSI</b>	75 - 290	7975 - 11600	> 19500
<b>Flexural Strength MPa</b>	--	5 - 8	15 - 18
<b>Young's Modulus GPa</b>	--	18 - 24	38 - 42
<b>Mixed Density SG</b>	1.1 - 1.3	1.92 - 2.05	2.35 - 2.45
<b>Mixed Density lb/US gal</b>	9 - 11	16 - 17	19 - 20
<b>Application(s)</b>	<ul style="list-style-type: none"> <li>• Underbase grouting</li> <li>• Pipeline tunnel annulus filling</li> </ul>	<ul style="list-style-type: none"> <li>• Structural pile grouting</li> <li>• Fabric Formwork filling</li> <li>• Structural repair clamps</li> <li>• Platform member strengthening</li> </ul>	<ul style="list-style-type: none"> <li>• Monopile Transition Piece grouting</li> <li>• Structural Pile grouting</li> <li>• Platform member strengthening</li> <li>• Caisson repair</li> </ul>
<b>Formulation</b>	Cement, Seawater and Silicate	Cement and Seawater	Cementitious material and Freshwater
<b>Cement type</b>	OPC / CEM I / ASTM Class 1	OPC / CEM I / ASTM Class 1 or 2 / Oilwell G	Masterflow 9500
<b>Mixing Method</b>	RJM & Silicate Metering System	RJM & Colloidal Batch Mixer	Proprietary Batch Mixer
<b>Optimum Delivery Hose Diameter (inch)</b>	2	2	3
<b>Mixing Rate (m<sup>3</sup>/hr)</b>	40	25	8
<b>Transportation</b>	Bulk tank	Bulk tank	Big bags

\* 75mm cubes