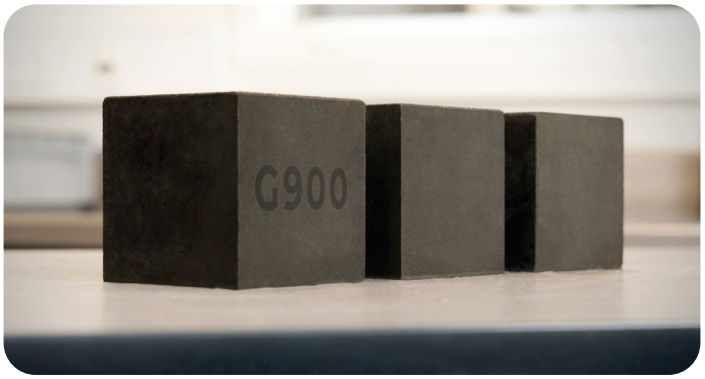
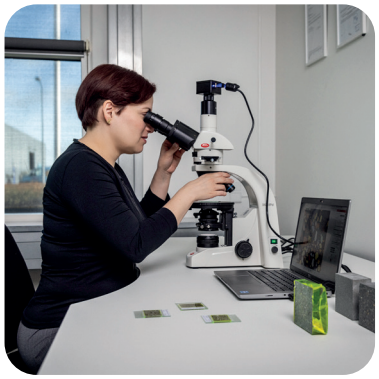
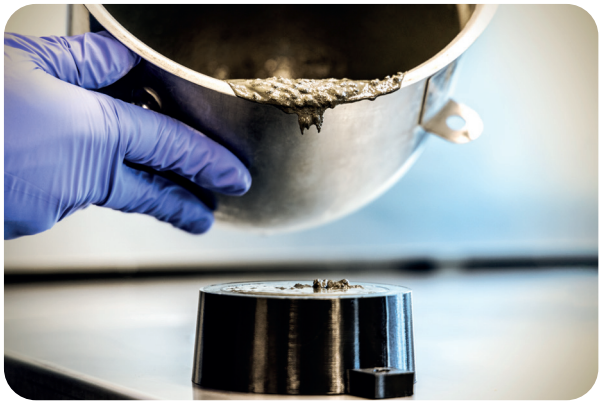
Y-MatTec®G900

High strength grout for offshore connections





Y-MATTEC

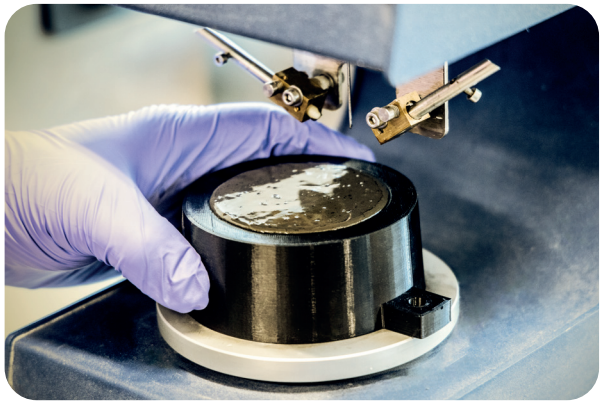


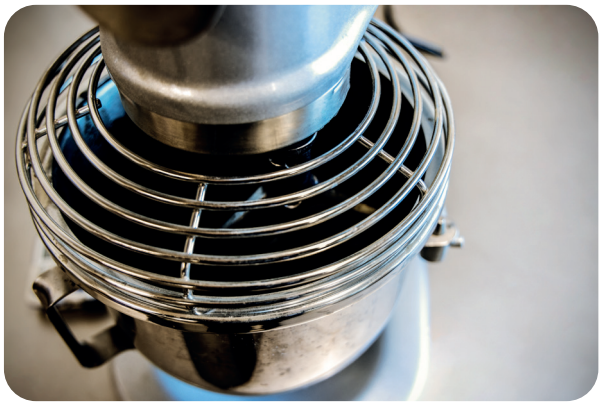
Applications

Y-MatTec®G900 is a high-performance, shrinkage-compensated grout with exceptional strength and flowability for use in offshore grouted connections, which can be pneumatically transferred and pumped through 2”flexible hoses over a maximum distance of 300 m and an elevation of 30 m.

Characteristics

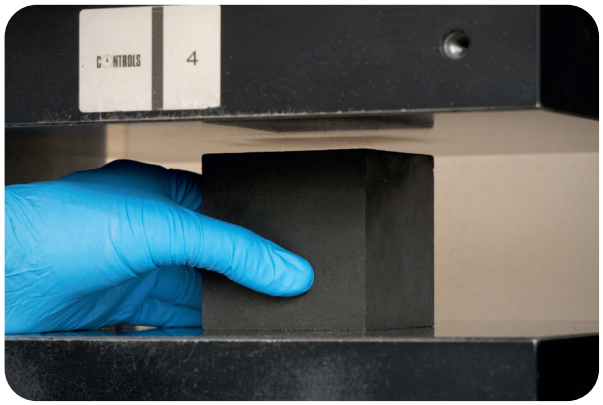
Y-MatTec®G900 can be transferred pneumatically, which can reduce the number of crane operations and therefore the cost of the grouting operation. The material has first in class flow properties that make it possible to grout narrow constrictions with very low water cement ratio at low and high temperatures, while obtaining high early strength.





Application thickness ranges from 30 mm to 600 mm. Y-MatTec®G900 is highly cohesive which results in a verified free fall height of 500 mm though water.

Y-MatTec®G900 should be mixed with 13.0% to 14.5% of potable water at 20˚C (based powder mass) in either a continuous mixer (e.g. recirculating jet mixer) or a mechanical batch mixer (e.g. planetary super pan mixer). The water dosage depends on ambient temperature – higher temperature increases the water demand. The product can be mixed and used within an ambient temperature from 0˚C to 30˚C. At any temperature, it is recommended to make a flow test before the application, to set the correct water dosage.



Application of Y-MatTec®G900 should be done by trained and qualified personnel.

Quality management system

Development, production, and sales are governed by Y-MatTec's quality management system certified in accordance with ISO 9001:2015 by DNV.

Y-MatTec is also certified according to the Environmental Management System ISO 14001:2015 and Occupational Health and Safety Management System ISO 45001:2018 by DNV.

Y-MatTec G900 grout is Offshore certified according to DNV ST C502, Type Approval Certificate No: TAK00002KN.

Packaging and distribution

Y-MatTec®G900 is manufactured at Y-MatTec's facilities in Holstebro, Denmark, with the use of Y-MatTec's automatic production facilities and can be supplied in FIBC bags for eventual loading into silos. Various FIBC sizes are available. The yield is approximately 500 liters per metric ton of dry material.

Quality control is performed at Y-MatTec's internal laboratory.

Y-MatTec®G900 has a shelf life of 12 months in FIBC, if stored in a sheltered and dry place in its original packaging away from direct sunlight and heat, not exceeding 40oC. When stored in silo, the shelf life is reduced to 6 months, or the remaining shelf life, whichever is shortest. Storage under high temperature and high humidity conditions may reduce the shelf life.

Health risks

Y-MatTec®G900 is a cement-based product and should be stored out of reach of children.

It is dangerous if consumed.

If Y-MatTec®G900 gets into the eyes, it can lead to serious eye injuries.

Mixed Y-MatTec®G900 forms calcium hydroxide which is an irritant to the skin.

For further info, please refer to the product's Material Safety Data Sheet.

Technical Data

Pot life			>2 hours		
Free fall height [mm]			500		
Application thickness [mm]			30 - 600		
Setting time [Min] EN196-3		Initial: 9 - 11 hours		Final: 10 - 12 hours	
Flow [mm] ASTM C1437 / EN 1015-3			285 - 350		
Fresh density [g/cm3] EN1015-6			2.25 - 2.31		
Air content [%] EN 1015-7			<2.0		
Compressive strenght classification*			C90/105		
Compressive strength 75 mm cube, 20°C [MPa] EN12390-3	1 day > 45	3 days > 75	7 days > 90	28 days > 110	56 days > 120
Compressive strength 150 x 300 mm cylinder, Characteristic [MPa]			> 100		
Density [g/cm3] EN12390-7			2.26 - 2.32		
Static Modulus of Elasticity, [GPa] EN 12390-13			> 35		
Poisson's ratio (μ)			0.23		
Flexural Strength [MPa] EN 196-1 (40 x 40 x 160 mm prism)			> 12		
Splitting tensile strength (MPa) EN 12390-6 (150x300 mm cylinder)			> 6.5		
Drying Shrinkage [mm/m] EN 12617-4			< 0.5		
Autogenous Shrinkage [mm/m] until 56 days ASTM 1698			< 0.25		
Restrained Shrinkage ASTM C1581			No cracking		
Exposure Classes* EN 206-1, DIN 1045-2			XC4, XD3, XS3, XF3, XA2, WF		

All data are given for conditions of 21 +/- 2oC and 60 +/- 10% RH.

Note:
Similar to all other recommendations and technical information, the information given in this TDS serves only as a description of the products' characteristics, area of use and application is expected to be done by trained professional personnel. The data and information given are based on the best technical knowledge in cement and concrete technology. The given data and consumption are obtained in a controlled laboratory environment and may be subject to variations due to different work conditions. Actual consumption and dosage should be determined on the job based on prior tests at the worksite. Our Technical Service Team is at your disposal for further recommendations. Y-MatTec reserves the right to modify the composition of the products provided these continue to comply with the data given. For liabilities of products sold we refer to our General Sales and Delivery Terms. Y-MatTec® - Registered trademark of Y-MatTec.

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