
High strength, high modulus, Nano-engineered cementitious grout enhanced with Carbon NanoFibers for offshore grouting, wind turbine installations, and similar applications.

Product Description

ce200™ – 140G is a two phase, non-shrinkage, cementitious grout which when mixed with the Carbon NanoFibers enhanced water produces a homogenous, easily flowable and pumpable grout with superior early (1 day) and final (28 days) strength and modulus without showing any shrinkage throughout the curing process. ceEntek's advanced Nano engineered binder and packing optimization produces a high-strength grout with 'best-in-class' performance, superior rheological properties, and extended lifetime.

Application Areas

ce200™ – 140G has been designed to meet the requirements of both small and large scale pump applications. Areas of Use include:

- Annulus grouting and Void filling up to 600mm thickness
- Grouting under tropical conditions (i.e. high heat & humidity)
- Grouting of wind turbine installations including foundations, mono-piles and transition pieces

Please contact us for your specific projects and requirements.

Features and Benefits

- DNV Certification expected by Q4, 2018
- ABS certification obtained for South East Asia Installations
- Compressive strength > 140MPa (28days)
- Superior early strength > 60MPa (24Hours/20°C)
- Outstanding flexural strength > 18MPa (28days)
- High Modulus and excellent fatigue resistance
- No bleeding or segregation
- No wash-out during under water grouting
- No wear and tear on pump equipment due to optimized particle grading
- Two phase system guarantees optimum, homogenous dispersion of Nano particles

Application Method

ce200™ – 140G has been formulated for use in offshore applications. Installations should be by trained, experienced contractors. ceEntek will ensure this training is provided to qualified parties.

Consumption

ce200™ – 140G is a two-phase system delivered in jumbo bags and pails. One pail supplies the Carbon NanoFibers in paste form for one jumbo bag. The content of the pail is diluted with the mixing water, creating a black, ink like mixture.

ce200™-140G

High Performance Cementitious Grout

Description

ce200™-140G is a high performance cementitious grout enhanced with Carbon NanoFibers for offshore grouting.

Features and Benefits

- High early strength
- E-modulus > 50MPa
- Autogenous shrinkage < 0.01%
- Pot life > 2 hours
- Adhesion to steel > 20MPa
- No water carrying capillaries, impermeable, negligible chloride penetration, UV resistant.
- Superior bonding strength to other cementitious materials and to steel.
- Easily pumpable
- Lifetime: 100+ years

Typical Uses

- Offshore grouting
- Repair grouting
- Pre-cast joints

Advantages

- Chemical Resistant
- Epoxy-Free
- High-Strength
- Durable
- Acid Resistant

Mechanical Properties

PROPERTIES		ce200™-140G	ce200™-140G _a
Compressive strength ¹ (MPa)	1-day	>60	>60
	3-day	>90	>90
	7-day	>120	>120
	28-day	>140	>140
Flexural strength ² (MPa)	7-day	>18	>18
Density (kg/m ³)		2450	2350
Flow ³ (mm)		280	280
Shrinkage (%)		<0.01%	<0.01%

¹ Compressive strength in accordance to ASTM C109 test in a 100mm cubic specimen.

² Flexural strength in accordance to ASTM C348 test in a 40mm prism specimen.

³ Flow in accordance to ASTM C230.