

MINING / CONSTRUCTION

CELROC P

THIXOTROPIC NON-SHRINK GROUT

DESCRIPTION

Celroc P is a non-shrink, non-metallic grout consisting of rapid hardening hydraulic cements and a super plasticizer, designed to produce a pumpable grout at low water/cement ratios. Minimal dilution in moving water is a unique feature. Celroc P sets without water bleed, and controlled expansion ensures a perfect bond to all surfaces, including concrete, rock, and steel.

Celroc P is designed for anchoring and void filling applications. The product is also ideal for anchoring and grouting rock and soil anchorages in deep holes in open foundations, dams, and underground rock structures.

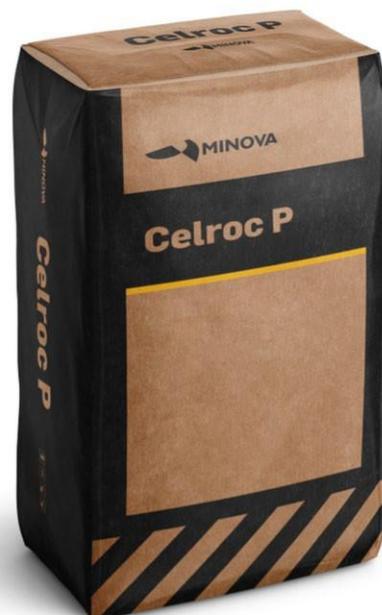
Celroc P is highly sulfate resistant and tolerates aggressive ground water conditions. Unit yield is 0.5 cubic feet when mixed at the standard water/powder ratio of 0.30. Celroc P is ideal for stand-pipe installation and grouting steel in casings where speed and performance are essential. Celroc P may be tremied when underwater placement is required.

USES

Celroc P is used to grout and rapidly consolidate highly fractured rock strata which would otherwise prevent the drilling of anchor bolt holes, or where water infiltration threatens foundation stability. The product can also be pumped overhead without grout loss by adjusting the water/cement ratio.

ADVANTAGES

- Non-shrink – controlled expansion
- Rapid setting – sets in 75 minutes
- High strength - thixotropic



APPLICATION METHOD

Place 1-1/2 gallons (5.67 litres) of water in mixer. Start agitator and add 50 pounds (22.5 Kg) of Celroc P from the bag, stirring throughout. Dispersion is fast, and no lumping should occur. Pour or pump the grout immediately after preparation.

Thoroughly flush all lines with water upon completion of grouting. Adjusting water/cement ratios from 0.27 to 0.35 provides for a cement from a gel to pourable (batter-like) consistency.

Purge all equipment lines, pumps and tanks of Portland cement mixes with clean water prior to batching and placing Celroc P.

TECHNICAL DATA

The data below is laboratory data only. Results may vary in practice due to thermal exchange between cement and substrate, temperature, and other factors.

**COMPRESSIVE STRENGTH
ASTM C109**

Temperature at 73°F (24°C) Water / Celroc P Ratio = 0.30	
75 minutes	Initial Set
4-1/2 hours	1,500 psi (10.3 MPa)
24 hours	5,000 psi (34.5 MPa)
48 hours	7,000 psi (48.3 MPa)
28 days	8,000 psi (55.2 MPa)

**EXPANSION
ASTM C827 & C1090**

Celroc P shows positive expansion at 24 hrs old according to ASTM C827. Per ASTM C1090, the expansion is 0.0145 percent (%) at 24 hrs old. Water/solids ratio employed was 0.30.

ADDITIONAL APPLICATIONS

For applications, especially where more than 6” thickness is required, the exotherm can be significantly lowered and slowed by mixing equal parts (by weight) Celroc P and aggregate. Mix equal parts fine aggregate (sand with max. particle size 2 to 3mm) with Celroc P while also reducing water-to-solids ratio by half. Crack penetration will be reduced. Exotherm reduction by 20% determined by laboratory testing. Celroc P/Sand mix compressive strength reduced by about 50% in 7 day sample testing (3,400 psi after 7 days). No shrinkage or hydration cracks observed in large bucket samples. Celroc P/Sand mix has reduced viscosity compared to Celroc P mix with no sand.

**SAFETY INSTRUCTIONS AND
LIMITATIONS**

Observe the usual precautionary measures for handling chemicals, see Celroc P SDS.

Use water to clean material from skin and clothing.

PACKAGING AND TRANSPORTATION

Celroc P is available in 50 lb, (22.5 Kg) bags.

STORAGE AND SHELF LIFE

Unused quantities may be resealed and stored in a cool, dry place for up to six months. Never add material to this product unless instructed by Minova USA, Inc.

DISPOSAL

If this product as supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. Dispose of material in accordance with all applicable federal, state/provincial, and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the sole responsibility of the waste generator.

APPROVALS AND CERTIFICATES



an ISO 9001:2015
Quality Management System Certified Company.

DISCLAIMER

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ADDITIONAL DOCUMENTATION

If further information is required, consult Minova Americas website: www.minovaglobal.com.

- Celroc P Safety Data Sheet (SDS)
- Minova Chemicals, Polymers & Steel Application Guide
- Minova – Pumps for Civil Engineering, Tunneling and Restoration
- Strata Injection and Cavity Fill Chemicals – Minova Master Product Catalogue
- Minova Celroc P Product Specification

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