

RECPLAST PC 1002

HIGH RANGE WATER REDUCER - SUPERPLASTICIZER



DESCRIPTION

RECPLAST PC 1002 is a high solids polycarboxylate based high range water-reducing admixture which enables concrete to be produced with very low water to cement ratios. RECPLAST PC 1002 produces flowable and selfconsolidating concrete at low doses and can obtain up to 45% water reduction. RECPLAST PC 1002 does not contain added chlorides and will not promote corrosion in steel. RECPLAST PC 1002 is compatible with airentraining agents, microsilica, accelerators and many other admixtures; however, each material should be added to the concrete separately.

PRIMARY APPLICATIONS

- High performance concrete
- Negative slump concrete
- Heavily reinforced concrete
- Flatwork and mass concrete
- High early strength concrete
- Precast/prestressed concrete
- High slump, flowable concrete

FEATURES/BENEFITS

- Produces low water content and low water/cement ratio concrete allowing higher strengths
- Produces flowing concrete with quicker stripping strengths
- Aids in concrete placement and reduces labor cost
- When used in precast work with Type I and Type III cements, RECPLAST PC 1002 will produce very high early strengths

TECHNICAL INFORMATION

Performance Data:

The following test results were achieved using typical ASTM C 494 mix design requirements, 517 lb/yd³ (307 kg/m³) cement content and similar (± 0.5)% air content. These results were obtained under laboratory conditions with materials and mix designs meeting the specifications of ASTM C 494. Changes in materials and mix designs can affect the dosage response of RECPLAST PC 1002.

PACKAGING

RECPLAST PC 1002 is packaged in bulk, (1000 L) tanks, (210 L) drums and (20 L) pails.

SHELF LIFE

6 months in original, unopened container.

SPECIFICATIONS/COMPLIANCES

- Fully complies with the requirements of ASTM C 494, Types A & F admixtures.
- Complies with the requirements of AASHTO M 194.

DIRECTIONS FOR USE

RECPLAST PC 1002 can be added to the initial batch water or directly on the freshly batched concrete and mixed for approximately 5 minutes or 70 revolutions. However, better results have been observed batching directly on the freshly batched concrete. It should not come into contact with dry cement or other admixtures until mixed thoroughly with the concrete batch.

RECPLAST PC 1002 is typically used at dosages of 3 to 8 oz per 100 lbs (200 to 520 mL per 100 kg) of cementitious material. High-performance concrete applications may require dosages from 8 to 18 oz per 100 lbs (520 to 1175 mL per 100 kg) of cementitious material. Higher dosage rates are acceptable with prior testing and confirmation of the desired performance with specific materials being used.

For any concrete application including Self-consolidating concrete (SCC), the dosage of RECPLAST PC 1002 will vary depending on the mix design, local materials, and individual needs of the concrete producer.

Trial mixes should be run to verify plastic and hardened performance with local materials. If the material gradations are not optimum for SCC, a viscosity modifier may be used to improve the quality

of the mix. Please consult a local Reckon chemical Sales Professional for trial mixtures and dosage recommendations.

RECPLAST PC 1002 is compatible with most admixtures including air-entraining agents, accelerators, most water-reducers, retarders, shrinkage reducers, corrosion inhibitors, viscosity modifiers, and microsilica; however, each material should be added to the concrete separately.

PRECAUTIONS/LIMITATIONS

- Care should be taken to maintain RECPLAST PC 1002 above freezing; however, freezing and subsequent thawing will not harm the material if thoroughly agitated. Never agitate with air or an air lance.
- Keep concrete from freezing until a minimum strength of 1000 psi (7 MPa) is reached.
- In all cases, consult the Material Safety Data Sheet before use.