

REDBRAWN 400

PC based superplasticizer



Description:

REDBRAWN 400 differentiated from conventional superplasticisers in that it is based on a unique carboxylic ether polymer with long lateral chains. This greatly improves cement dispersion. At the start of the mixing process an electrostatic dispersion occurs but the cement particle's capacity to separate and disperse. This mechanism considerably reduces the water demand in flow able concrete. REDBRAWN 400 combines properties of water reduction and workability retention. It allows the production of high performance concrete and/or concrete with high workability. It is a strong super- plasticizer allowing production of consistent concrete properties around the required dosage.

Uses:

- Self-compacting concrete
- Pumpable concrete
- Concrete requiring long workability retention
- High performance concrete

Advantages/Characteristics:

- Increased early and ultimate compressive strengths
- Increased flexural strength & durability
- Higher E modulus
- Improved adhesion to reinforcing and pre stressing steel
- Better resistance to carbonation Lower permeability
- Better resistance to aggressive atmospheric condition
- Reduced shrinkage and creep

Product Standard Compliance:

- IS 9103:1999
- BS 5075:1985 part-3
- ASTM C494/C494M, Type F

Company Standard Compliance:



Technical Information:

Properties	Specification
Appearance	A Reddish Brown Color Liquid
Sp. Gravity	1.05 to 1.10 @25°C
pH Value (IS 9103:1999)	6 to 8
Chloride Content (IS 9103:1999, IS 6925, EN 480-10)	<0.1
Classification according to IS 9103 : 1999 (3.6)	Imparts very high workability or allows a large decrease in water content
Classification according to ASTM C494	Type-F

Application Procedure:

REDBRAWN 400 can be added into the mixing water or directly into the concrete mixture after 50-70% of the mixing water has been added. The addition of REDBRAWN 400 to dry aggregates or cement is not recommended. To achieve optimum performance a minimum wet mixing time, which is depending on the mixing conditions and the mixer performance, of 60 seconds is recommended.

Dosage Range:

The optimum dosage of REDBRAWN 400 to meet specific requirements should be determined by trials using the materials and conditions that will be experienced in use. The normal dosage range is between 0.6 to 1.0 % of cement.

Benefits:

- **Enhanced durability:** It reduces the permeability and increases the resistance to weathering and enhances the durability.
- **Workability:** It can be used to produce flowing concrete that requires no compaction and produce high workable mix without segregation.
- **Compressive strength:** It improves dispersion of cement grains and cause shortening of the stiffening time and the early strength can be enhanced at a constant w/c ratio.

Limitation:

- Excessive water addition or overdosing may cause bleeding or segregation.
- If frozen / separation of the product has occurred, Redwop REDBRAWN 400 may be used after thawing slowly at room temperature and intensive mixing. Before application, suitability tests must be performed.

Basis of Product Data:

All technical data stated in this product data sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

Compatibility:

REDBRAWN 400 may be combined with many other Redwop products. Trials must always be carried out before combining products in specific mixes. Contact Redwop Technical Services for additional information and any specific combinations.

Packaging:

REDBRAWN 400 is supplied in 220 kg drums.

Storage & Shelf-Life:

REDBRAWN 400 has a minimum shelf life of 12 months provided the temperature is kept within the range of 2 °C to 50 °C. Should the temperature of the product fall outside this range then contact Redwop office for advice.

Health & Safety:

REDBRAWN 400 does not fall into the hazard classifications of current regulations. However, it should not be swallowed or allowed to come into contact with skin and eyes.

Suitable protective gloves and goggles should be worn. Splashes on the skin should be removed with water. In case of contact with eyes rinse immediately with plenty of water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting.

For further information refer the Safety Data sheet available for this product.

PRODUCT FOR PROFESSIONAL USE.

Fire:

REDBRAWN 400 is water based & non- flammable.

Legal Notice:

The information, and, in particular, the recommendations relating to the application and end-use of Redwop products, are given in good faith based on Redwop's current knowledge and experience of the products when properly stored, handled and applied under normal conditions in accordance with Redwop's recommendations. In practice, the differences in materials, substrates and actual site conditions are such that no warranty in respect of merchantability or of fitness for a particular purpose, nor any liability arising out of any legal relationship whatsoever, can be inferred either from this information, or from any written recommendations, or from any other advice offered. The user of the product must test the product's suitability for the intended application and purpose. Redwop reserves the right to change the properties of its products. The proprietary rights of third parties must be observed. All orders are accepted subject to our current terms of sale and delivery. Users must always refer to the most recent issue of the local Product Data Sheet for the product concerned, copies of which will be supplied on request.



It is the practice of increasing efficiency with which buildings use resources- energy, water and materials-while reducing building impacts on human health and the environment.



ISO 45001 is the world's international standard for occupational health and safety, issued to protect employees and visitors from work-related accidents and diseases.



ISO 9001:2015 is a globally recognized standard for quality management systems (QMS). It helps organizations of all sizes and sectors to: Improve performance, Meet customer expectations, Demonstrate commitment to quality, and Identify and improve processes that lack consistency.



ISO 14001 is the internationally recognized standard for environmental management systems (EMS). It provides a framework for organizations to design and implement an EMS, and continually improve their environmental performance



This symbol is used to identify Redwop products which give off a low level of volatile organic compounds (VOC) as certified by GEV (Gemeinschaft Emissionskontrollierte Verlegewerkstoffe, Klebstoffe und Bauprodukte e.V.), an international organisation for controlling the level of emissions from products used for floors.



Our Commitment To The Environment
Redwop products assist Project Designers and Contractors create innovative LEED (The Leadership in Energy and Environmental Design) certified projects, in compliance with the U.S. Green Building Council.



ISO/IEC 17025 enables laboratories to demonstrate that they operate competently and generate valid results, thereby promoting confidence in their work both nationally and around the world.