

PRODUCT TECHNICAL DATA SHEET

THE INFRASTRUCTURE & HIGH-RISE SPECIALIST CEMENT

DESCRIPTION

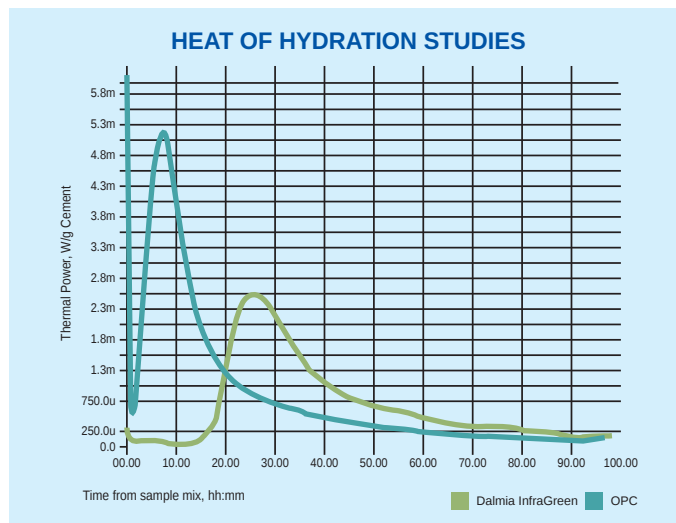
Infrastructure development is a necessity for a rapidly growing country such as India. The relentless surge of population needs to be matched with rapid development of urban infrastructure in a sustainable manner. Relying upon our 'over 7 decades' of experience and understanding the dynamics of Indian construction market have encouraged us to innovate a proprietary solution for Infrastructure segment - a HIGH PERFORMANCE cement called as Dalmia InfraGreen conforming to the BIS standard (BIS CERTIFICATION MARKS LICENSE NO. CM/L-1206530). It is a pozzolan and chemically modified cement with highly improved performance. This high performance speciality cement perfectly meets the requirements of infrastructure development and delivers large constructions with fast and enhanced productivity. This product normally needs no other performance enhancers but just water and that too in much lesser quantity while application in the concrete.

USES

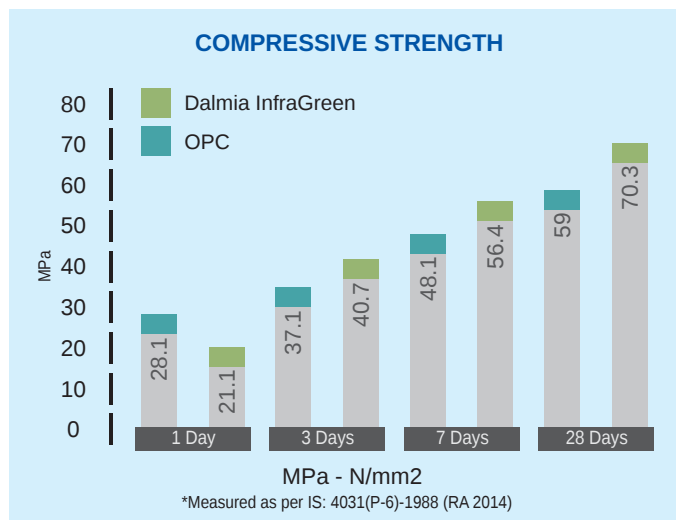
- Intended for heavy duty application and specially created to dramatically speed up construction, be it a highway or air strip, bridge or metro, dam or any large/high rise construction.
- Ideal for tunnel-form concretes, high early strength and precast concretes

SPECIAL FEATURES

- **Improved early and late age strength** - 20% more than normal OPC. It is Grade 70 cement at 28 days and Grade 53 by 7 days
- **Water conserving** - a special and proprietary GREEN cement, needs 15-20% less water compared to normal OPC
- **Superior workability/flowability in the fresh state** - compared to normal cements for quick and easy self-compaction of heavily reinforced sections
- **No need to add other chemical admixtures** - to produce high strength, high durability and water proof concrete
- **Low shrinkage characteristics** - (for large/mass concreting) compared to OPC and hence better shrinkage related crack control of large sections and improved durability performance



- **Ultra low water permeability** - superior water ingress resistance compared to any integral water-proofer modified cement or concrete (providing enhanced longer term durability against atmospheric carbonation or ingress of harmful chlorides and sulphates from ground water or marine fronts)



- **Low heat of hydration** - for large/mass concreting compared to OPC and hence better thermal related crack control of large sections
- **Low porosity** - resulting in denser microstructure and hence enhanced durability
- **Significant reduction in the construction time** - runways, highway stretches, metro sections can be opened in 3 days post laying of concrete because it achieves required early age strength
- **Savings on raw material and space** - large sections for heavy construction in the infrastructure segment or large beams/columns in high rise buildings can be made significantly slender and thereby reducing the use of materials including cement and/or increasing the sellable spaces in high rise buildings

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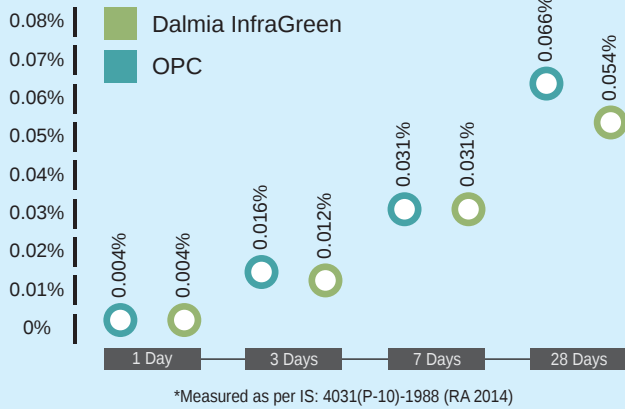
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HIGH PERFORMANCE

EARLY STRENGTH

Dalmia INFRA GREEN

DRYING SHRINKAGE



QUALITY CONTROL

The product is factory blended, tested and packaged to quality control procedure as per the BIS standard.

PACKAGING

Dalmia InfraGreen is supplied pre-packed in 50 kg bag.

STORAGE AND SHELF LIFE

Dalmia InfraGreen should be stored in a dry place and protected against moisture. We recommend that the storage time should not exceed 6 months from the date of manufacturing. Storage beyond the date specified does not necessarily mean that the material is unusable, but the user should perform a quality check on the properties necessary for the intended application.

CLEAN UP AND SPILLAGES

Dry powders should be cleaned thoroughly and disposed in accordance with the rules and regulations applicable as per the local authority.

HEALTH AND SAFETY

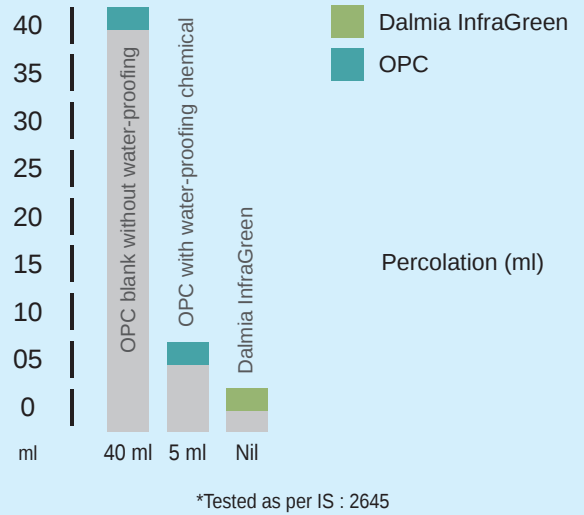
Contact between cement powder and body fluids (i.e. sweat and eye fluids) may cause irritation or dermatitis. Therefore, users are advised to wear face mask, goggles, gloves or other protective equipment while mixing and applying the cementitious product. Clothing contaminated by wet cement should be removed immediately and washed before use. In case of contact with eyes, rinse immediately with water and seek medical advice. Keep the product out of reach of children.



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NOTE: The information supplied in the data sheet is based on the outcome of extensive in-house research and development. We reserve the right to update this information from time to time without prior notice. We guarantee the consistent high quality of our product. However, the final finish quality of this material will depend upon the operative having the required skills and a familiarisation with the materials and its application method. Dalmia cement cannot be held responsible where workmanship has not been carried out in accordance with good practice.

WATER PERMEABILITY (INTEGRAL WATER PROOFING TEST)



WATER DEMAND (ml) Different Grades of cement Vs Water Demand (cc)

