



TEST RESULTS OF JK SUPER 43 GRADE CEMENT

S. No	Properties	JK Internal Standard
1.	COMPRESSIVE STRENGTH(MPa)	
	3 DAYS	30
	7 DAYS	38
	28 DAYS	50
2	SETTING TIME (Minute)	
	INITIAL	140-160
	FINAL	Max 250
3	FINENESS (Blaine or m²/kg)	Min 280
4	SOUNDNESS	
	LE CHATELIER	1mm
	AUTOCLAVE	0.2%
Unit of Compressive strength is MPa. 1MPa = 10 Kg/cm ² Confirms to BIS standard IS 269:2015		



Customer Technical Services :

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JK Super OPC 43 Grade Cement



Company Overview

JK Cement Ltd. is one of the leading cement manufacturers in India that has catered to the nation's multi-sectoral infrastructure needs on the strength of its product excellence, customer orientation, and technology leadership. The company, which has formerly been focused on the north and central Indian markets, has begun to expand its market presence into new geographies, JKCement's aspirations for global growth are currently being addressed via our white-cum-grey cement plant in Fujairah, UAE.

Since, our inception in 1974 we have grown and evolved to continually meet the changing needs of our customers and partners. We are proud producers of Grey Cement, White Cement, Wall Putty, Tile Adhesives, Paints, Wood Coatings and Construction Chemicals.



About JK Super OPC 43 Grade Cement :

- Ordinary Portland Cement conforming to IS:269-2015
- JK Super 43 Grade cement is produced by using best lime stone available in India
- JK Super 43 Grade cement has Superior Strength, Extra Fineness, Consistency in Quality
- Surpasses all national and international standards
- Suitable in all climates, geographies and applications

Technology & Quality Assurance

- Our all units are ISO 9001:2015 (QMS), ISO 14001:2015 (EMS), OHSAS 18001:2007 & ISO 50001:2011 (EnMS) certified by LRQA
- Manufacturing units incorporate technical expertise of Denmark based cement giant F. L. Smidth & Co.
- Our units have the latest technology process control including Gama Matrix Analyser, Robo Lab, Automatic Blaine Analyser which ensures the consistent quality
- QCX and QXRD : Quality Control by Computer, X-Ray Analyser and X-Ray Diffractometer to automatically control the quality of raw mix composition and clinker
- Complete operations controlled by Fuzzy Logic System to ensure consistent and best quality
- Use of roller press in production ensures Optimum PSD of cement
- For increased rate of strength gain higher Blaine maintained at 280+ m²/kg while IS requirement is of min 225 m²/kg



Benefits of JK Super 43 Grade Cement

- Economical due to superior quality and higher strength. (Refer table 1 and 2)
- Better soundness and low chloride content for enhanced performance of the concrete
- Concrete structures made with JK Super 43 grade cement has proven to be more durable and safe due to lower permeability of concrete
- Reliable and prompt technical services

TABLE- 1
SUGGESTED MIX PROPORTIONS
FOR CONCRETE WORK

Type of construction	Minimum grade of concrete	Compressive strength after 28 days (N/mm ² or MPa)	Proportion with JK Super 43 Grade cement
Beam , Slab, Column	M20	20	1:1.75:3.5
Foundation, Prestress Concrete	M25	25	1:1.25:2.5
For PCC	M15	15	1:2.5:4.5

TABLE- 2
SUGGESTED MIX PROPORTIONS
FOR PLASTERING WORK

Type of application	With JK Super 43 Grade Cement
Masonry 9"	1:6
Masonry 4.5"	1:5
Wall Plaster Internal	1:6.5
Wall Plaster External	1:4.5
Ceiling Plaster	1:4

We Believe In Best Customer Services

► Type of Services

- Concrete testing at JK Concrete Innovation and Application Centre (CIAC)
- Free Concrete mix design
- Sand, coarse aggregates and water testing
- Slump Cone testing during slab casting
- Slab supervision by competent engineer
- NDT/Rebound hammer test
- Technical training to the applicators
- Free cover block supply at site

► Quality of Service

- Believe in "Build Strong"
- Toll Free Contact Number
- Prompt Services
- Experienced Engineers
- Customized Solutions

Best Practices for Safe, Strong and Durable Construction:

Pre-construction or Application

- Always use fresh and good quality cement like JK Super 43 grade cement for your dream home.
- Ensure robust and water tight shuttering to reduce the chances of seeping out of cement slurry from the wet concrete.
- Aggregate used in concrete should be well graded, angular and strong.
- Use cover blocks to maintain the proper cover to reinforcement for durable construction and proper bonding.
- Use 1.25'x1.0'x1.0' size measuring boxes to measure the sand and aggregate for preparing mix.

During construction or Application

- Use potable water for mixing in cement to get higher strength.
- Always use mechanical mixture machine to mix the mortar to get a homogeneous mix.
- Always maintain right water cement ratio. It is observed that

one liter extra water can reduces strength of concrete or mortar by 4%.

- Wet cement should be used with in 1.5 hrs. to get better results.
- Do not pour concrete from more than 1 meter height to avoid segregation.
- For better compaction always use vibrator (needle/plate vibrator as per requirement).
- Do not add Sugar/Molasses in mortar or concrete.

Post construction or Application

- In normal condition curing should be done for at least for 7 days to get good strength. In dry and hot condition curing should be done for minimum 12 days.
- For vertical components like column or wall curing should be done after wrapping hessian cloth to get better results.
- Never remove shuttering before the time period mentioned in IS 456:2000.