



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		



Company Overview

JK Cement Limited is pioneer in manufacturing world class cement of different types and grades in India. From a modest beginning in the year 1974 with a capacity of 0.3 million tons at Nimbahera, today the company has an annual combined production capacity of 10.5 MTPA. The company's state-of-the-art cement production extended its footprints by setting up 4 integrated plants, 1 grinding unit and spread it's market operations across Rajasthan, Gujarat, Western Uttar Pradesh, Uttarakhand, Haryana, Punjab and Jammu & Kashmir in North and Maharashtra, Karnataka, Kerala and Goa in the South. The company is also one of the leading manufacturer of White Cement in India and enjoys a Pan India presence. The company made its first international foray with setting up of a green field dual process white cement-cum-grey cement plant in the free trade zone at Fujairah, U.A.E. to cater the GCC and African markets.



Benefits of JK Super 43 Grade Cement

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

About JK Super OPC 43 Grade Cement :

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

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



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 Safe"
 - 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.