TEST REPORT

TEST REPORT NO. : BNR-1330
TEST REFERENCE NO. : TR-842233
TEST REPORT DATE : 13/01/2026

NAME OF CUSTOMER :
CAPPATERY PRIVATE LIMITED
Plot No. 316/5846, Niladri Vihar, Chandrasekharpur, Sailashree Vihar Road, Bhubaneswar, Khordha, Odisha-751021

PROJECT / SITE ADD:
Plot No. 316/5846, Niladri Vihar
Chandrasekharpur, Sailashree Vihar Road,
Bhubaneswar,
Khordha, Odisha-751021

QUANTITY : 1
CUSTOMER REF. NO & DATE : Order No. 45 & Dated : 29-12-2025
SOURCE OF SAMPLE : Concrete Mix Design verification
DATE OF RECIEPT : 13/12/2025

CONCRETE MIX DESIGN VERIFICATION

GRADE OF CONCRETE	M - 30		
TARGET MEAN STRENGTH =	(30 + 1.65 X 5) 38.25 N/mm^2	TYPE OF CONCRETE	: RCC
MAXIMUM SIZE OF AGGREGATE	: 20 mm	EXPOSURE CONDITION	: Severe
WORKABILITY REQUIRED	: 180 ± 20 mm (Slump at placement)	WATER CEMENTITIOUS RATIO (w/cm)	: 0.41

DATA OF INGREDIENTS

Ingredients	Type of material	Source of materials	Average Specific Gravity	Water Absorption %	Material Percentage used
Cement	OPC 43G	Ultratech	3.15	-	100
Coarse Aggregate	20 MM	NECL Crusher (VSI)	2.80	1.60	38
	10 MM	NECL Crusher (VSI)	2.80	1.11	25
Fine Aggregate	Crushed Sand	NECL Crusher	2.72	2.96	37
Chemical Admixture	Superplasticizer	Graphene Concrete Admixture	1.09		0.80

CONCRETE MIX PROPORTION FOR SATURATED SURFACE DRY (SSD) AGGREGATE GIVEN BY CUSTOMER

Sr No	Ingredients	Material in kg/Cum	Material in kg/Cement Bag	DLBD (kg/Ltr)	Material in Vol (Ltrs) / Cement bag	Material by Farma of 35 Lit Cap./ Cement Bag
1	Cement	420	1			
3	20 mm (SSD)	717	85	1.54	55	1.6
4	10 mm (SSD)	477	57	1.54	37	1.1
6	Crushed Sand (SSD)	702	84	1.83	46	1.3
7	Free Water	172	20	--	--	--
8	Admixture	3.36	0.40	--	0.37	--

BNR-1330 /Batch-1 TR-842233

CUBE COMPRESSIVE STRENGTH TEST RESULT

Sr. No.	Area of Cube Specimen, mm2	Date of Casting	Date of Testing	Age in days	Weight (kg)	Load (kN)	Compressive Strength (N/mm^2)
1	22607	16/12/2025	23/12/2025	7	8.807	765.0	33.8
2	22650	16/12/2025	23/12/2025	7	8.833	889.9	39.3
3	22622	16/12/2025	23/12/2025	7	8.870	850.5	37.6
						Average	36.9

23% improvement over baseline in 7 days

Sr No.	Area of Cube Specimen, mm2	Date of Casting	Date of Testing	Age in days	Weight (kg)	Load (kN)	Compressive Strength (N/mm^2)
1	22710	16/12/2025	13/01/2026	28	8.697	900.9	39.7
2	22618	16/12/2025	13/01/2026	28	8.737	877.1	38.8
3	22640	16/12/2025	13/01/2026	28	9.051	990.2	43.7
					Average		40.7

Remark :

* Observed Workability: After 60minutes 200mm, after 120minutes 190mm & after 180minutes 170mm.
* Trial batch witnessed by Mr. Aneeya Samantra (Lead Scientist) & Mr. Rabindra Waybase (Operation Director).

Note :

* Mix will require necessary moisture correction of water at site depending condition of aggregate ***(see clause No. 10.2.5 of IS 456:2016)*** .
* As per Clause No.10.2 of IS 456: 2016, Water shall be weighed or measured by volume in a calibrated tank for batching of concrete ***(see also IS 4925)*** .
* As per Clause No.9.2.3 of IS 456: 2016, Mix design is valid for one year from the date of report provided there is no change in source and the quality of row materials used in the mix while designing.
* This Certificate valid only to the sample submitted for testing.
* ***Test values for concrete ingredients and Mix Proportion are given by the customer.***

GLOBAL LAB MATERIAL TESTING PVT LTD Bhubaneswar Odisha

Authorised Signatory

Branch Office: Global Lab Material Testing Pvt. Ltd, Plot No- 206, Mahadev Nagar, Jharapada Road, Khordha, Bhubaneswar, Odisha- 751006

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