

REGIONAL LABORATORY

R.W.D, MUZZAFFARPUR

TEST RESULT OF CONCRETE CUBE

Name of Work :- Cube Test for CCP M30.

Name of Road :- Brahmaul to Amdhur Tola under MMGSY in Nanpur Block.

Name of Division :- R.W.D Works Division Pupri Date of Collection/Receipt 20.06.2020

Name of Agency :- Shree Awadh Mithila Constn. Pvt. Ltd. Date of Test :- 23.06.2020

Agreement No :- 06/SBD/2020-21 Package No :- MMGSY

Ref :- (PIU) A.E R.W.D Works Sub Div. Nanpur LT No :- 246/Enc. :- DT 26.05.2020

SL. No	Test after 7 days			Test after 28 days CH-75 M.		
Dt. of Concreting				25.05.20	25.05.20	25.05.20
Dt. Of Test				23.06.20	23.06.20	23.06.20
ID Mark				A ₁	A ₂	A ₃
Area C.M ²				225	225	225
Maximum Load KN				680.00	670.00	670.00
Crushing Strength Kg/CM ²				308.39	303.85	303.85
Remarks				M30		

Remarks :- M30.

Memo No. 776 Date 23/06/20

Copy To :- E.E R.W.D Works Divisions Pupri

23/6/20
L.A

23/6/20
A.E

23/6/20
E.E
R.W.D

Regional Laboratory
Muzaffarpur

कार्यपालक अभियन्ता
राज्यीय कार्य विभाग
क्षेत्रीय प्रयोगशाला, मुजफ्फरपुर

GRADATION TEST OF ... GSB Gr. I.

Date Of Collection. 26.05.2020

Date of test 28.05.2020

Date of test 28.05.2020

Date of test 28.05.2020

Date of test 28.05.2020

Permissible:

4509 637 दिनांक 19-5-2020

Pring
28/5/20
A.E.

~~7/7/52~~
E.E

Scanned by CamScanner

REGIONAL LABORATORY

R.W.D , MUZAFFARPUR

PHYSICAL & GRADATION TEST OF..... WBM Gr: III.....

Name of Work :- Construction of Road from Brahmaul to Amahur Tola under MMGSY in Nanpur Block.

Name of Division:- R.W.D Works Division Pimpri.....

Name Of Agency:- Shree Awadh Mithila Construction Pvt. Ltd. Date Of Collection /Receipt 26.05.2020

Agreement No:- 06/SBD/2020-21

Date Of Test:- 28.05.2020

Ref.....A.E.R.W.D Works Sub Div. Nanpur LT.NO. 238/Enclosures/.....DT.13.05.2020

PHYSICAL TEST

SL.NO	A.I.V		WATER ABSORPTION		REMARKS
	TEST VALUE%	REQUIRED LIMIT%	TEST VALUE%	REQUIRED LIMIT%	
1.	21.59%	40%	0.790%	3%	Permissible.

GRADATION TEST

Sl. NO	Sieve No M.M	Weight Retained (KG)	% Wt of Retained	Cumulative % Retained	% of passing (KG)	Required limit%	Remarks
		CH. 100 M.					
		Wt. of Sample - 16.450 kg.					
		Wt. of screening - (C) 3.124 "					
		Wt. of Stone Metal = 13.324 kg.					
	63	NIL	NIL	NIL	100	100	Permissible.
	53	0.529	3.97	3.97	96.03	95 - 100	
	45	3.856	28.94	32.91	67.09	65 - 90	
	22.4	7.592	56.98	89.89	10.11	0 - 10	
	11.2	1.307	9.81	99.70	0.30	0 - 5	
			/				

Memo No. 637 Date 29-5-2020

Copy To:- E.E.R.W.D Works Div. Pimpri.

24/5/20
LA

28/5/20
A.E

28/5/20
E.E

कार्यपालक अभियन्ता
ग्रामीण कार्य विभाग
क्षेत्रीय प्रयोगशाला, मुजफ्फरपुर



MS TEST HOUSE

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.....Substantial Testing for Quality Work
NABL ACCREDITED & ISO 9001:2015 CERTIFIED LABORATORY
(H.D. Office) Abhiyanta Nagar, Z-Sector Plot No.-09, Near R.J. Complex, Ashiana Nagar, Patna - 800025
(B.R. Office) Raj Kumar Ganj, Near Poor Home, Darbhanga
Mobile No. +91-900-6069-267, 7903542027 Email: mstesthouse@gmail.com

TEST REPORT

Issued To:

Shree Awadh Mithila Construction Pvt. Ltd.
Baruraj, Motipur, Muzaffarpur.

Description of Sample: Design Mix

Grade:- M-30

Sub: -Mix Design of concrete for the construction of Road and CD works with
Maintenance for Brahmaul To Amdhur Tola Under MMGSY.

Ref.No.-, Dated: 20.04.2020

Report No: MSTH-2004200334

Date of Receipt: 20.04.2020

Date of Testing: 20.04.20-18.05.20

Date of Report: 18.05.2020

The method of concrete mix design consists of selection of optimum proportions of water, cement, fine & coarse aggregate and admixture of produce concrete of specified properties most economically. The proportion of concrete mix is obtained by experimentally evolved relationship between the factors in the choice of mix design. It provides reasonably accurate guide to arrive at optimum proportions of ingredients. The final mix proportions are obtained on the basis of trial mixes. The mix design has been carried out as per stipulation of India standards specification IS: 10262 guidelines keeping in view the recommended mix standard deviations and targeted mean strength. The Recommended mix proportions should be tested at site for their workability & strength before it is adopted.

1. Design Stipulations:		
A	Characteristic Compressive Strength of Concrete required in field after 28 days	30 N/mm ²
B	Target Strength at 28 days N/mm ²	38.25 N/mm ²
C	Maximum size of Aggregates	20 mm
D	Required Slump	80-100 mm
E	Degree of quality control	Medium
F	Type of Exposure	Moderate
2. Test Data For The Materials Used		
A	Type of Cement	OPC 43 Grade (Birlagold)
B	Consistency, %	30.0
C	Initial Setting Time (Minutes)	151
D	Final Setting Time(Minutes)	262
E	Compressive Strength (3 days) MPa	26.8
F	Compressive Strength (7 days) MPa	37.5
G	Compressive Strength (28 days) MPa	52.7
H	Specific Gravity	3.15
I	Minimum Cement Content	320 Kg/m ³
J	Specific Gravity of Admixture	1.08
K	Type of Admixture	Sikament

Authorized Signatory

Sample as received in the Laboratory by Agency.
Result listed refer only to the tested sample & applicable parameters. Endorsement of product is neither inferred nor implied.
Sample will be destroyed after one month from the date of issue of test certificates unless otherwise specified.
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TEST REPORT

3. Source Of Material			
A	Coarse Aggregate (20mm & 10 mm)		Mirzachowki
B	Fine Aggregate (Sand)		Kollwar
4. Specific Gravity			
A	Coarse Aggregate (20mm)		2.66
B	Fine Aggregate		2.56
C	Impact Value, % Coarse Aggregate (20mm)		14.5
5. Abrasion Value, %			
A	Coarse Aggregate (20mm)		21.7
6. Water Absorption, %			
A	Coarse Aggregate (20 mm)		0.34
B	Fine Aggregate		1.31
7. Free Moisture Content, %			
A	Coarse Aggregate (20mm)		Nil
8. Bulk Density, Gm/Cc			
A	Coarse Aggregate (20mm)		1.52
B	Fine Aggregate		1.60
9. Sieve Analysis			
(i)	Coarse Aggregate:		
IS: Sieve Size (mm)	Analysis of Aggregate coarse fraction % finer (%)		As Per IS: 383 For Graded Aggregate Of Nominal Size
	20mm	10mm	62:38
40.0	100	100	100
20.0	96.2	100	97.6
12.5	-	100	-
10.0	13.8	91.6	43.2
4.75	1.7	12.5	5.8
2.36	-	2.2	-
(ii)	Fine Aggregate:		
IS : Sieve Size	Cumulative Percentage Passing		Cumulative percentage Finer as per IS: 383-2016 Zone-III
10.0 mm	100		100
4.75 mm	98.4		90-100
2.36 mm	89.7		85-100
1.18 mm	80.4		75-100
600 micron	69.6		60-79
300 micron	24.5		12-40
150 micron	7.2		0-10

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TEST REPORT

10. Determination Of Quantity Of Materials:					
Water Cement ratio		0.46			
Water:		188.0 Ltr./m ³			
Sand content:		663 Kg/m ³			
Coarse Aggregate:		1118 Kg/m ³			
Cement Content:		407 Kg/m ³			
Slump		95 mm			
11. Ratio (By Weight)					
Cement Content		Water	Fine Aggregate	Coarse Aggregate	
1		0.46	1.60	2.75	
Mix Proportion By Weight Are As Follows:					
Cement Kg/m ³		Water Kg/m ³	Admixture (% by wt. of Cement), Kg/m ³ (0.9) %	Fine Aggregate Kg/m ³ (38%)	Total Coarse Aggregate (20mm) Kg/m ³ (62%)
Trial-1	417	198.0	3.75	640	1100
Trial-2	412	193.0	3.66	648	1108
Trial-3	407	188.0	3.64	653	1118

Mix Proportion By Weight Are As Follows:				
Cement Kg/m ³	Water Kg/m ³	Admixture (% by wt. of Cement), Kg/m ³ (0.9)%	Fine Aggregate Kg/m ³ (38%)	Total Coarse Aggregate (20mm) Kg/m ³ (62%)
50	23.0	0.45	80.0	137.5


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12. A. Compressive Strength (7 Days)		DOC-20.04.2020	DOT-27.04.2020
S No.	Compressive Strength (N/mm ²)	Average Compressive Strength	
		(N/mm ²)	(Kg/cm ²)
1.	25.4	24.8	248
2.	24.4		
3.	24.7		
B. Compressive Strength (28 Days)		DOC-20.04.2020	DOT-18.05.2020
S No.	Compressive Strength (N/mm ²)	Average Compressive Strength	
		(N/mm ²)	(Kg/cm ²)
1.	40.4	39.7	397
2.	39.7		
3.	38.9		

Remarks: -

1. Trial-3 is recommended for the mix proportion at the Site for their Workability and Strength.
2. This mix design has been done at saturated condition.
3. Your material brought at site is dry or wet, than water can be decreased or increased according water Absorption.
4. Tap Water of our lab has been used, if water not supply, water should be pure and clean in concrete mix As Per IS: 456-2000 & IS: 3025
5. Admixture Used Sikament Brand.


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