

REGIONAL LABORATORY

R.W.D, MUZFFARPUR

TEST RESULT OF CONCRETE CUBE

Name of Work :- Cube Test for CCP-M30.
 Name of Road :- Ramdeo Ray Sirsi to Laheri Tola Sirsi under MMGS,
in Nanpur Block.
 Name of Division :- R.W.D Works Division Pupri. Date of Collection/Receipt :- 20.06.2020
 Name of Agency :- Shri Awadh Mithila Constn Pvt. Ltd. Date of Test :- 23.06.2020
 Agreement No :- 25/SAD/2020-21 Package No :- M.M.G.S.Y.
 Ref:- (PIU) A.E R.W.D Works Sub Div. Nanpur LT No: 247/Enc./ DT. 26.05.2020

SL. No	Test after 7 days			Test after 28 days		
				CH. 125 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
I D Mark				AM ₁	AM ₂	AM ₃
Area C.M ²				225	225	225
Maximum Load KN				690.00	700.00	670.00
Crushing Strength Kg/CM ²				312.92	317.46	303.85
Remarks				— M30 —		

Remarks :- M30.

Memo No. 777 Date 23/06/20

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

23/6/20
L.A

23/06/20
A.E

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

Regional Laboratory
Muzaffarpur

कार्यपालक अभियन्ता
ग्रामीण कार्य विभाग
क्षेत्रीय प्रयोगशाला, मुजफ्फरपुर

R.W.D., MUZAFFARPUR

GRADATION TEST OF GSB Gr.I

TEST OF
Construction of Road from Ramdev Ray Sirsi to Laheri Tola Sirsi
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Name of work:- under Nandpur Block under MMGSY. Date Of Collection. 26.05.2020

Date Of Collection. 26.05.2020

Agreement No:- 05/SBD/2020-21

Name of Division:-R.W.D., Works Division ..Puri.

Date of test 28:05:2020

Name Of Agency Shree Awadh Mithila Construction Pvt. Ltd.

Ref.(PIU) Vide L.No.239/Enclosure/13.05.2020 of AE, RWD, WSD - Nanpur.

[illegible]

Copy forwarded to - Executive Engineer
R.W.D., Works Division *Pupri.*

4-11/15 636 15/15 29-5-2020

28.5.20
LA

Prang
28/5/20
A.E.

~~42/28532~~
E.E

कार्यपालक अधिकारता
ग्रामीण कार्य विभाग
क्षेत्रीय प्रयोगशाला, मुजफ्फरपुर

MS TEST HOUSE

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MSTH

.....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 Ramdev Ray Sirsi to Laheri Tola Sirsi Under MMGSY.

Ref.No.-, Dated: 20.04.2020

Report No: MSTH-2004200324

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	75-100 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, %	28.9
C	Initial Setting Time (Minutes)	147
D	Final Setting Time(Minutes)	246
E	Compressive Strength (3 days) MPa	28.8
F	Compressive Strength (7 days) MPa	38.2
G	Compressive Strength (28 days) MPa	51.2
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 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)		Koilwar
4. Specific Gravity			
A	Coarse Aggregate (20mm)		2.68
B	Fine Aggregate		2.59
C	Impact Value, % Coarse Aggregate (20mm)		15.3
5. Abrasion Value, %			
A	Coarse Aggregate (20mm)		22.3
6 Water Absorption, %			
A	Coarse Aggregate (20 mm)		0.37
B	Fine Aggregate		1.33
7. Free Moisture Content, %			
A	Coarse Aggregate (20mm)		Nil
8. Bulk Density, Gm/Cc			
A	Coarse Aggregate (20mm)		1.48
B	Fine Aggregate		1.58
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	96.6	100	98.5
12.5	-	100	-
10.0	13.4	92.5	42.9
4.75	1.4	11.2	5.1
2.36	-	2.4	-
(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	97.4		90-100
2.36 mm	89.9		85-100
1.18 mm	79.4		75-100
600 micron	68.6		60-79
300 micron	22.6		12-40
150 micron	8.2		0-10

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TEST REPORT

10. Determination Of Quantity Of Materials:					
Water Cement ratio			0.47		
Water:			192.0 Ltr./m ³		
Sand content:			666 Kg/m ³		
Coarse Aggregate:			1128 Kg/m ³		
Cement Content:			404 Kg/m ³		
Slump			100 mm		
11. Ratio (By Weight)					
Cement Content		Water		Fine Aggregate	
1		0.47		1.65	
				Coarse Aggregate	
				2.79	
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	414	202.0	3.31	653	1106
Trial-2	409	197.0	3.27	658	1112
Trial-3	404	192.0	3.23	666	1128

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	23.5	0.40	82.5	139.5

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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.	23.9	24.0	240
2.	24.2		
3.	24.0		
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.	39.1	39.3	393
2.	38.5		
3.	40.3		

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.


Authorized Signatory

