DEPARTMENT OF TECHNICAL EDUCATION, TAMIL NADU

GOVERNMENT COLLEGE OF ENGINEERING, DHARMAPURI– 636 704

From	**To**
The Principal,	M/s. JCK Blue Metal,
Government College of Engineering,	S.F. No. 257/3A, 3B, 4A1, 4A2, 4A3, 4A4, 4B1, 4B2,
Dharmapuri – 636 704.	4B3, 4B4, 4B5, 4B6, 4C, 258/4A, 5A & 5B,
	Chithathoor Village, Cheyyar Taluk,
	Tiruvannamalai District.

Lr. No.: **1. GCE / DPI / CIVIL / SOM / 2025-2026/ T – 050** **Dated: 10.06.2025**
2. GCE / DPI / CIVIL / EE / 2025-2026/ T – 031

Respected,

Sub : Test report on Materials -- Regarding

Ref : Lr.No:Nil Dated : 02.05.2025

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With reference to your letter cited above, M-Sand, P-Sand and Water samples supplied by you were tested and the test report is enclosed herewith. The receipt of the report may kindly be acknowledged.

Government College of Engineering Dharmapuri 636704

Principal

PRINCIPAL
Government College of Engineering,
Chettikarai, Dharmapuri-636 704

Enclosure: Test reports

DEPARTMENT OF TECHNICAL EDUCATION – TAMIL NADU

GOVERNMENT COLLEGE OF ENGINEERING – DHARMAPURI

DEPARTMENT OF CIVIL ENGINEERING

STRENGTH OF MATERIALS LABORATORY

TEST REPORT

Lr. No.: GCE / DPI / CIVIL / SOM / 2025-2026/ T – 050 (I) **Dated:10.06.2025**

Client Name & Address	:	M/S. JCK Blue Metal, S.F. No. 257/3A, 3B, 4A1, 4A2, 4A3, 4A4, 4B1, 4B2, 4B3, 4B4, 4B5, 4B6, 4C, 258/4A, 5A & 5B, Chithathoor Village, Cheyyar Taluk, Tiruvannamalai District.
Reference	:	Lr.No:Nil Dated : 02.05.2025
Name of the work	:	Test of M-Sand Sample for Construction Purpose.
Nature of test	:	Sieve Analysis, Water Absorption, Bulk Density, Specific Gravity, Deleterious Materials, Soundness, Total Alkali Content, Total Sulphate Content, Water Soluble Chloride Content, Alkali Aggregate Reaction and Bulking of Sand
Details of sample received	:	Fine Aggregate (M-Sand)
Date of sample received	:	02.05.2025

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Department of Civil Engineering Dharmapuri-636 704 Government College of Engineering

Test Results:

a) Sieve Analysis (IS 2386- Part I: 1963)

Sieve Size	Weight Retained(g)	Cumulative Weight Retained (g)	Cumulative Percentage Retained (%)	Cumulative Percentage Passing (%)	Grading Limits Suggested in IS 383-2016 for Zone II
10mm	0	0	0.0	100.0	100
4.75mm	0	0	0.0	100.0	90-100
2.36mm	81	81	7.9	92.1	75-100
1.18mm	228	309	30.2	69.8	55-90
600µ	268	577	56.5	43.5	35-59
300µ	190	767	75.0	25.0	8-30
150µ	182	949	92.9	0.0	0-10
Pan	73	1022	100.0	0.0	0
Fineness Modulus				**2.6**	
Zone (As per IS 383:2016)				**II**	

S.No.	Parameter Tested	Test Conducted as Per	Test Value	Permissible value
b)	Specific Gravity	IS 2386-Part III: 1963	2.61	2.10 - 3.20
c)	Water absorption (%)		2.8	Shall not be more than 5.0 Percent
d)	Compacted Bulk Density (g/cm^3)		1.81	Limit not specified
e)	Loose Bulk Density (g/cm^3)		1.73	Limit not specified
f)	Bulking of Sand (%)		2.8	Limit not specified
g)	Coal and Lignite (%)	IS 2386-Part II 1963	NIL	Shall not be more than 1.0 Percent
h)	Clay Lumps (%)		NIL	Shall not be more than 1.0 Percent
i)	Materials finer than 75 Microns IS Sieve (%)		3.8	Shall not be more than 10.0 Percent
j)	Organic Impurities		Passes the test	Shall pass the test
k)	Silt Content (%)		1.5	Limit not specified
l)	Soundness (%)	IS 2386-Part V 1963	6.3	Shall not be more than 10.0 Percent
m)	Total Alkali Content (%)	IS 4032:1985	0.08	Shall not be more than 0.3 Percent
n)	Total Sulphate Content (%)		0.03	Shall not be more than 0.5 Percent
o)	Water Soluble Chloride Content (%)	IS14959-Part II 2001	0.02	Shall not be more than 0.04 Percent
p)	Alkali Aggregate Reaction: Concentration of Silica in (mmol/L)	IS 2386 - Part VII: 1963	21.0 (Innocuous Aggregate)	Limit not specified
q)	Alkali Aggregate Reaction: Reduction in Alkalinity (mmol/L)		165.6 (Innocuous Aggregate)	Limit not specified

Remark:

It is certified that the given M Sand sample is 'Fit for Construction purpose"

10/06/25

Head of the Department

Head of the Department
Department of Civil Engineering
GCE, Dharmapuri-636 704.

Department of Civil Engineering
Dharmapuri-636 704
Government College of Engineering

10/06/25

TEST REPORT

Lr. No.: GCE / DPI / CIVIL / SOM / 2025-2026/ T – 050 (II) **Dated:10.06.2025**

Client Name & Address	:	M/s. JCK Blue Metal, S.F. No. 257/3A, 3B, 4A1, 4A2, 4A3, 4A4, 4B1, 4B2, 4B3, 4B4, 4B5, 4B6, 4C, 258/4A, 5A & 5B, Chithathoor Village, Cheyyar Taluk, Tiruvannamalai District.
Reference	:	Lr.No:Nil Dated : 02.05.2025
Name of the work	:	Test of P-Sand Sample for Construction Purpose.
Nature of test	:	Sieve Analysis, Bulk Density, Deleterious Materials, and Compressive Strength of Masonry Mortar cubes
Details of sample received	:	Fine Aggregate (P-Sand + Cement OPC 43 grade)
Date of sample received	:	02.05.2025

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Test Results:

a) **Sieve Analysis** (IS 2386- Part I: 1963)

Sieve Size	Weight Retained(g)	Cumulative Weight Retained (g)	Cumulative Percentage Retained (%)	Cumulative Percentage Passing (%)	Grading requirements of Sand for use in Plastering as per IS 1542:1992
10mm	0	0	0.0	100.0	100
4.75mm	0	0	0.0	100.0	95-100
2.36mm	0	0	0.0	100.0	95-100
1.18mm	67	67	6.7	93.3	90-100
600µ	79	146	14.6	85.4	80-100
300µ	398	544	54.4	45.6	20-65
150µ	351	895	89.5	10.5	0-20
Pan	105	1000	100.0	0.0	0
				Fineness Modulus	**1.7**

Satisfies the requirements as per IS 1542:1992

Department of Civil Engineering
Dharmapuri-636 704
Government College of Engineering

S.No.	Parameter Tested	Test Conducted as Per	Test Value	Permissible value
b)	Compacted Bulk Density (g/cm^3)	IS 2386-Part III: 1963	1.62	Limit Not Specified
c)	Loose Bulk Density (g/cm^3)		1.55	Limit Not Specified
d)	Coal, Silt and Dust		NIL	Not more than 5.0 Percent
e)	Organic Impurities		Passes the test	Shall pass the test
f)	Materials finer than 75 Microns IS Sieve (%)		5.2	Limit Not Specified
g)	Compressive Strength of Masonry Mortar cube of grade OPC 43 at 28 days	IS 2250 – 1981	8.2	Minimum 3 N/mm² @ 28 Days

Remark:

It is certified that the given P Sand sample is 'Fit for Construction purpose"

Department of Civil Engineering
Dharmapuri-636 704
Government College of Engineering

PWR LD 10/6/25

Head of the Department

Head of the Department
Department of Civil Engineering
GCE, Dharmapuri-636 704.

10/06/25

Kindly Note: Any correction in the certificate not attested by the concerned authority shall invalidate this report

DEPARTMENT OF TECHNICAL EDUCATION – TAMIL NADU

GOVERNMENT COLLEGE OF ENGINEERING – DHARMAPURI

DEPARTMENT OF CIVIL ENGINEERING

ENVIRONMENTAL ENGINEERING LABORATORY

TEST REPORT

Lr. No.: GCE / DPI / CIVIL / EE / 2025-2026/ T – 031 **Dated: 10.06.2025**

Client Name & Address : M/s. JCK Blue Metal,
S.F. No. 257/3A, 3B, 4A1, 4A2, 4A3, 4A4, 4B1, 4B2, 4B3, 4B4, 4B5, 4B6, 4C, 258/4A, 5A & 5B, Chithathoor Village, Cheyyar Taluk, Tiruvannamalai District.

Reference : Lr.No:Nil Dated : 02.05.2025

Name of the work : Test of Water Sample for Construction Purpose.

Nature of test : Organic Solids, Inorganic Solids, Sulphate, Chloride, Suspended Matter, pH value, Neutralization with NaOH and H_2SO_4.

Date of sample received : 02.05.2025

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Test Results:

S.No.	Parameters	Test Conducted as Per	Test Value	Permissible value
1.	Organic Solids (mg/L)	IS 3025 - Part 18: 1984	144	Not more than 200 (mg/L)
2.	Inorganic Solids (mg/L)	IS 3025 - Part 18: 1984	960	Not more than 3000 (mg/L)
3.	Sulphate as SO_3 (mg/L)	IS 3025 - Part 24: 1986	88	Not more than 400 (mg/L)
4.	Chloride as Cl (mg/L)	IS 3025 - Part 32: 1988	168	Not more than 500 for RCC (mg/L)
5.	Suspended Matter (mg/L)	IS 3025 - Part 17: 1984	92	Not more than 2000 (mg/L)
6.	pH value	IS 3025 - Part 11: 1983	7.6	Not Less than 6
7.	Neutralization with NaOH (ml)	IS 3025 - Part 22: 1986	2.3	Not more than 5.0 (ml)
8.	Neutralization with H_2SO_4 (ml)	IS 3025 - Part 23: 1986	14.8	Not more than 25.0 (ml)

Remark:

It is certified that the given water sample is 'Fit for Construction purpose"

P Q R L 10/6/25

Head of the Department

Head of the Department
Department of Civil Engineering
GCE, Dharmapuri-636 704.

Department of Civil Engineering
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