

Transportation Engineering Laboratory (TEL)

Department of Civil Engineering (CED)

UNIVERSITY OF ENGINEERING & TECHNOLOGY (UET)

LAHORE – 54890 (PAKISTAN)



Phone: 092-42-9929202 Cable: UNIVENGTECH Fax: 092-42-9922566

Ref.:-----

Date:-----

Mr. M. Hassan Khan
Resident Engineer,
NESPAK, Lahore.

Subject: **Testing of Sand for Concrete/Mortar**
Scheme # 15 Rehabilitation/Improvement/Patch Work on Link Roads UC 24, 26,
27, 28, 31, 40, 41 Shalamar Zone MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/SMZ(S-15 & 17)/04/21 dated 16-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this
laboratory on 03-02-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	99.63	99.12	98.46	96.49	12.98	2.26

2. Fineness Modulus (ASTM C-142)

Fineness Modulus (%)	0.93
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3. Specific Gravity & Water Absorption (ASTM C-128)

Specific Gravity (OD)	2.64
Specific Gravity (SSD)	2.66
Apparent Specific Gravity	2.70
Water Absorption (%)	0.86

If you have further query, please do not hesitate to contact the undersigned.

Best Regards,

Director
Transportation Engineering Laboratory

Note:

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Ref.:-----

Date:-----

Mr. M. Hassan Khan
Resident Engineer,
NESPAK, Lahore.

Subject: **Testing of Sand for Concrete/Mortar**

- Scheme # 9 Rehabilitation/Improvement of Sher Shah Road Bhogiwal to Tokywala Chowk Shalamar Zone MCL
- Scheme # 10 Rehabilitation/Improvement of Kashmir Road, Sethi Road, Ghorey Shah Darbar to Hazoori Shah/Darbar Road, Ghorey Shah Road from Chowk Shawala to Tezab Ahata Chowk Shalamar Zone MCL Lahore
- Scheme # 14 Rehabilitation/Improvement of Road UC 121, 128, 129, 130, 153, 156, 161, 162, 163, 164 and with 9h Jurisdiction Shalamar Zone MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/SMZ/04/21 dated 14-01-2025.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 03-02-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	99.47	99.05	98.71	96.54	13.79	2.31

2. Fineness Modulus (ASTM C-142)

Fineness Modulus (%)	0.92
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3. Specific Gravity & Water Absorption (ASTM C-128)

Specific Gravity (OD)	2.65
Specific Gravity (SSD)	2.67
Apparent Specific Gravity	2.70
Water Absorption (%)	0.74

If you have further query, please do not hesitate to contact the undersigned.

Best Regards,

Director
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Phone: 092-42-9929202 Cable: UNIVENGTECH Fax: 092-42-9922566

Ref.:-----

Date:-----

Engr. Ghulam Rasool
Resident Engineer, NESPAK,
MCL Nishtar Zone, Lahore.

Subject: **Testing of Aggregate (PCC Crush)**
Rehabilitation/Improvement of Streets (PCC), Sewerage/Drainage Mekhdooom
Colony UC-270, Nishtar Zone MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/NZ/01/119 dated 14-01-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this
laboratory on 28-01-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	$\frac{3}{4}$ "	$\frac{1}{2}$ "	$\frac{3}{8}$ "	#4
%age Passing	100	36.72	11.82	0

2. Los Angeles Abrasion Value Test (ASTM C-131/535)

Grading Used	Los Angeles Abrasion Value (%)
B	17.60

3. Flakiness & Elongation Index (BS 812: Part 105)

Sieve Size		Individual Flakiness Index (%)	Weighted Flakiness Index (%)	Individual Elongation Index (%)	Weighted Elongation Index (%)
Passing (in.)	Retained (in.)				
$\frac{3}{4}$	$\frac{1}{2}$	7.03	4.45	7.64	4.83
$\frac{1}{2}$	$\frac{3}{8}$	11.83	2.95	14.32	3.57
$\frac{3}{8}$	$\frac{1}{4}$	6.19	0.73	7.28	0.86
Flakiness Index = 8.13%			Elongation Index = 9.26%		

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Resident Engineer,
NESPAK, Lahore.

Subject: **Testing of Sand for Concrete/Mortar**

- Scheme # 9 Rehabilitation/Improvement of Sher Shah Road Bhogiwal to Tokywala Chowk Shalamar Zone MCL
- Scheme # 10 Rehabilitation/Improvement of Kashmir Road, Sethi Road, Ghorey Shah Darbar to Hazoori Shah/Darbar Road, Ghorey Shah Road from Chowk Shawala to Tezab Ahata Chowk Shalamar Zone MCL Lahore
- Scheme # 14 Rehabilitation/Improvement of Road UC 121, 128, 129, 130, 153, 156, 161, 162, 163, 164 and with 9h Jurisdiction Shalamar Zone MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/SMZ/04/21 dated 14-01-2025.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 03-02-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	99.47	99.05	98.71	96.54	13.79	2.31

2. Fineness Modulus (ASTM C-142)

Fineness Modulus (%)	0.92
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3. Specific Gravity & Water Absorption (ASTM C-128)

Specific Gravity (OD)	2.65
Specific Gravity (SSD)	2.67
Apparent Specific Gravity	2.70
Water Absorption (%)	0.74

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Date:-----

Engr. Ghulam Rasool
Resident Engineer, NESPAK,
MCL Nishtar Zone, Lahore.

Subject: **Testing of Sand**

Rehabilitation/Improvement of Streets (PCC), Sewerage/Drainage Mekhdooom
Colony UC-270, Nishtar Zone MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/NZ/01/1123 dated 14-01-2025.

Please find below the results for the tests conducted on the aggregate sample provided to this laboratory on 28-01-2025 through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	3/8"	#4	#8	#16	#30	#50	#100	#200
%age Passing	100	99.91	99.49	99.15	98.28	95.63	14.17	2.25

2. Percentage of Fines (ASTM D-1140) *Wet Sieving*

Silt and Clay (%)	3.58
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3. Fineness Modulus (ASTM C-142)

Fineness Modulus (%)	0.93
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Date:-----

Mr. Abid Azim
Resident Engineer, NESPAK,
Ravi Zone.

Subject: **Testing of Granular Sub-base Material**
Rehabilitation/Improvement of Roads Sadaat Colony, Ali Pura, Sanatha Park, Mian Park, Aleem Colony, Hanif Park & Muhammadia Colony UC 18 Ravi Zone MCL

Dear Sir,

It is with reference to your letter No. 4084/103/LDP/Ravi/04/263 dated 10-03-2025.
Please find below the results for the tests conducted on the aggregate sample provided to this laboratory through your representative.

1. Sieve Analysis (ASTM C-136)

Sieve Size	2"	1 1/2"	1"	3/4"	1/2"	3/8"	#4
%age Passing	100	98.41	80.80	64.93	53.49	45.08	37.98

2. Los Angeles Abrasion Value Test (ASTM C-131/535)

Grading Used	Los Angeles Abrasion Value (%)
A	29.33

If you have further query, please do not hesitate to contact the undersigned.

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Date:-----

The Sub Divisional Officer,
Highway Sub Division,
Mianwali.

Subject: **Testing of Bitumen**

Restoration/Improvement of Road from Harnoli to Musa Khel via Wan Bhachran,
Length = 49.13 km District Mianwali (Reach from Harnoli km No. 0.00 to Wan
Bhachran 24.00 km) Length = 24.00 km

Dear Sir,

It is with reference to your letter No. 241/SDO/Mwi dated 08-05-2025.

Please find below the result of test conducted on the bitumen sample provided to this laboratory on 12-05-2025 through your representative.

Laboratory Test	Result
Penetration (ASTM D-5)	86 Units

If you have further query, please do not hesitate to contact the undersigned.

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