

# 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:-----

The Resident Engineer,  
NESPAK,  
Khanewal.

Subject:

**Density and Bitumen Extraction of Asphalt Base Course**

- 1. Rehabilitation/Improvement/Widening/Construction of Metalled Road from Nizam Phatak to Marhi Tail (Length = 3.50 km) Tehsil Kabirwala District Khanewal ADP 2024-25 GS No. 7013**
- 2. Rehabilitation/Improvement/Construction of Metalled Road from Mahni Sial to Basti Akhtarabad (L = 2.00 km) and Mahni Sial to Lalywala (Length = 1.5 km) Total Length 3.50 km Tehsil and District Khanewal ADP 2024-25 GS No. 7015**

Dear Sir,

It is with reference to your letter No. RE/HHU/KWL/SDG/79 dated 08-03-2025.  
Please find below the results for the tests conducted on asphalt concrete cores and chunks provided to this laboratory on 14-03-2025 through your representative.

**BULK SPECIFIC GRAVITY OF COMPACTED ASPHALT (ASTM D2726):**

Core	Mean Thickness (cm)	Mean Diameter (cm)	Bulk Specific Gravity
RD 45+00, L/S, Scheme No. 1	5.946	10.000	2.410
RD 45+00, C/S, Scheme No. 1	6.087	10.000	2.395
RD 45+00, R/S, Scheme No. 1	6.030	10.000	2.391
RD 74+00, L/S, Scheme No. 1	6.390	10.000	2.405
RD 74+00, C/S, Scheme No. 1	6.563	10.000	2.391
RD 74+00, R/S, Scheme No. 1	6.097	10.000	2.419
RD 5+00, L/S, Scheme No. 2	6.563	10.000	2.398
RD 5+00, C/S, Scheme No. 2	6.050	10.000	2.411
RD 5+00, R/S, Scheme No. 2	6.443	10.000	2.399
RD 25+00, L/S, Scheme No. 2	6.600	10.000	2.397
RD 25+00, C/S, Scheme No. 2	6.703	10.000	2.400
RD 25+00, R/S, Scheme No. 2	6.337	10.000	2.409

## BITUMEN EXTRACTION TEST: (Chunks)

### RD 101+00, Scheme No. 1

Bitumen Extraction Value (ASTM D-2172)							4.24%	
Gradation Analysis								
Sieve No.	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	88.00	62.00	52.01	40.01	25.02	11.02	5.03

### RD 64+00, Scheme No. 2

Bitumen Extraction Value (ASTM D-2172)							4.25%	
Gradation Analysis								
Sieve No.	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	90.01	61.01	53.02	39.03	26.04	10.05	4.05

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

Best Regards,

Director  
Transportation Engineering Laboratory

**Note:**

1. This test report is based solely on the particular sample(s) supplied by the client and should not be reproduced in parts.
2. Sampling has not been performed by Transportation Engineering Laboratory (TEL), UET and TEL-UET does not accept the responsibility that the sample(s) supplied is/are truly representative sample(s) of any batch or stock or entire project.
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Ref.:-----

Date:-----

The Resident Engineer,  
NESPAK,  
Khanewal.

Subject: **Density and Bitumen Extraction of Asphalt Base Course**  
Project: **Rehabilitation/Improvement of Road from Kabirwala-Jhang Road upto District Boundary Khanewal, Length 47.00 km (Taken Length = 40.00 km), Tehsil Kabirwala District Khanewal (ADP 2024-25 GS No. 2185)**

Dear Sir,

It is with reference to your letter No. RE/HHU/KWL/RES/12 dated 22-02-2025.  
Please find below the results for the tests conducted on asphalt concrete cores and chunks provided to this laboratory on 14-03-2025 through your representative.

## **BULK SPECIFIC GRAVITY OF COMPACTED ASPHALT (ASTM D2726):**

Core	Mean Thickness (cm)	Mean Diameter (cm)	Bulk Specific Gravity
RD 226+00, L/S	6.300	10.000	2.409
RD 226+00, C/S	6.120	10.000	2.420
RD 226+00, R/S	6.647	10.000	2.412
RD 80+00, L/S	6.627	10.000	2.430
RD 80+00, C/S	6.107	10.000	2.410
RD 80+00, R/S	6.620	10.000	2.410

## **BITUMEN EXTRACTION TEST: (Chunks)**

**RD 75+85**

Bitumen Extraction Value (ASTM D-2172)								3.84%	
Gradation Analysis									
Sieve No.	1 ½"	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	90.00	82.01	59.00	47.01	34.00	23.02	8.02	3.02

**RD 260+25**

Bitumen Extraction Value (ASTM D-2172)								3.82%	
Gradation Analysis									
Sieve No.	1 ½"	1"	¾"	½"	3/8"	#4	#8	#50	#200
% Passing	100	91.00	80.99	59.00	47.99	32.99	22.00	9.00	4.00

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

Best Regards,

Director  
Transportation Engineering Laborato

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