

# 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,  
ESS-I-AAR Consultant.

Subject: **Testing of Bitumen – AASHTO Standard (M-20)**  
Project: Rehabilitation / Improvement of Metalled Road from Muzaffargarh to Panjnad Road (Different Reaches) Length = 5.85 km

Dear Sir,

It is with reference to your letter No. ADP/22-23/281 dated 22-05-2024.  
Please find below the results of tests conducted on the bitumen sample provided to this laboratory on 04-06-2024 through your representative.

Sr.#	Laboratory Tests	Results
1	Penetration (ASTM D-5)	67 Units
2	Penetration of Residue (ASTM D-5)	59 Units
3	Ductility (ASTM D-113)	Above 100 cm
4	Softening Point (ASTM D-36)	48.5°C
5	Flash Point (ASTM D-92)	290°C
6	Solubility (ASTM D-2042)	99.75%
7	Specific Gravity Value (ASTM D-70)	1.020
8	Loss on Heating Value (ASTM D-6)	0.219%

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.
3. While TEL-UET agrees to take every reasonable precaution to ensure validity of its test results, it assumes no liability thereof beyond the amount of the fee charged for the analysis or test.
4. The party shall assume full responsibility for the ethical use of the results in the test reports and the TEL-UET shall be held free from any and all claims which may result from the use of such data by client or others.
5. This test report shall not be reproduced wholly or in parts unless negotiated.

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Ref.-----

Date:-----

Engr. Shahzad Khurram Khan  
Chief Resident Engineer,  
AICC, Faisalabad.

Subject: **Testing of Bitumen**

Project: Construction of Sewer & Water Supply Networks at Main Arterial, Chiniot Sahianwala and Sem Nala Roads Including Balance Work at Main Arterial Road and Re-Routing of Water Course due to Industrial Units in Allam Iqbal Industrial City, Near Sahianwala Interchange M-4 Motorway, Faisalabad (Procurement No. AICC-06)

Dear Sir,

It is with reference to your letter No. CRE/AICC-06/Lab/821 dated 24-05-2024.

Please find below the results of tests conducted on the bitumen sample provided to this laboratory on 07-06-2024 through your representative.

Sr.#	Laboratory Tests	Results
1	Penetration (ASTM D-5)	65 Units
2	Penetration of Residue (ASTM D-5)	60 Units
3	Ductility (ASTM D-113)	Above 100 cm
4	Ductility of Residue (ASTM D-113)	Above 100 cm
5	Flash Point (ASTM D-92)	316°C
6	Solubility (ASTM D-2042)	99.80%
7	Thin Film Oven Test Value (ASTM D-1754)	0.247%
8	Loss on Heating Value (ASTM D-6)	0.230%

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

Best Regards,

Director  
Transportation Engineering Laboratory

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