



**TRANSPORTATION ENGINEERING LABORATORY**  
DEPARTMENT OF CIVIL ENGINEERING  
**INDIAN INSTITUTE OF TECHNOLOGY KANPUR**  
Kanpur 208 016, India



To,  
Nexus Petro Industries Ltd. Swati Trinity, Office No-811, B Block, 8<sup>th</sup> Floor Applewoods Township  
Sardar Patel Ring Road, Near Shantipura Circle, Shanathal Ahmedabad, Gujrat 380054

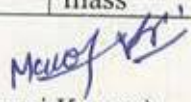
Your Ref: nil dated 08/09/2023

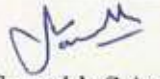
**Test report on bitumen emulsion (RS - 1)**

S.no	Name of the test	Test value	Method of test
1	Residue on 600 micron, percent by mass	0.03	IS 8887 : 2018 Annex B
2	Viscosity by Saybolt Furol viscometer at 50°C second	61	IS 3117 : 2004
3	Coagulation of emulsion at low temperature	Nil	IS 8887 : 2018 Annex C
4	Storage stability after 24 h, percent	1.23	IS 8887 : 2018 Annex D
5	Particle charge	Positive	IS 8887 : 2018 Annex E
6	Miscibility with water	No Coagulation	IS 8887 : 2018 Annex H
<b>Test on residue</b>			
a.	Residue by evaporation, percent	61.65	IS 8887 : 2018 Annex J
b.	Penetration @ 25° C	82	IS 1203 -1978 Reaffirmed 2004
c.	Ductility at 27° C cm	77	IS 1208 -1978 Reaffirmed 2004
d.	Solubility in trichloroethylene, percent by mass	99.85	IS 1216 -1978 Reaffirmed 2004

**Test report on bitumen emulsion (SS - 1)**

S.no	Name of the test	Test value	Method of test
1	Residue on 600 micron, percent by mass	0.02	IS 8887 : 2018 Annex B
2	Viscosity by Saybolt Furol viscometer at 25°C, second	50	IS 3117 : 2004
3	Coagulation of emulsion at low temperature	Nil	IS 8887 : 2018 Annex C
4	Storage stability after 24 h, percent	1.14	IS 8887 : 2018 Annex D
5	Miscibility with water	Immiscible	IS 8887 : 2018 Annex H
6	Water content, percent by mass	15	IS 1211 -1978 Reaffirmed 2004
<b>Test on residue</b>			
a.	Solubility in trichloroethylene, percent by mass	99.80	IS 1216 -1978 Reaffirmed 2004

  
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To,  
Nexus Petro Industries Pvt. Ltd.  
Office no 807, 8<sup>th</sup> Floor, Binori- B square 1  
Near Hathisinhvadi, Iscan Ambali Road, Karnavati Ahmedabad, Gujrat

Date: 08/09/2023

**Your Ref:** Email dated 04/05/2023

**Sub:** Testing of bitumen VG-30 and VG 40 as per IS 73: 2013

Please refer to the above mentioned letter. The following test was carried out on the samples provided by your division.

S.no	Sample	Name of the test
1.	Bitumen VG-30 &-40	(1) Penetration @ 25° C (2) Absolute Viscosity @ 60° C (3) Kinematic viscosity @ 135° C (4) Flash Point (5) Solubility in trichloroethylene (6) Softening Point
		(7) Test on residue from rolling thin film oven test: (a) Viscosity Ratio @ 60° C (b) Ductility at 27 ° C

The test report of bitumen is enclosed herewith. This complete the test related to this project. Please let us know if you have any further queries.

Sincerely,  
Thanking you.

(Manoj Kumar)  
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(Saurabh Srivastava)  
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Date: 08/09/2023

**Your Ref:** Email dated 04/05/2023

**Sub:** Testing of bitumen VG-30 and VG 40 as per IS 73: 2013

**Test report on bitumen (VG-30 )**

S.no	Name of the test	Test value	Method of test
1	Penetration @ 25° C	61	IS 1203 -1978 Reaffirmed 2004
2	Absolute Viscosity @ 60° C, Poises	3361.68	IS 1206 (Part II) -1978 Reaffirmed 2004
3	Kinematic viscosity @ 135° C, cSt	604.80	IS 1206 (Part III) -1978 Reaffirmed 2004
4	Flash Point ° C	279	IS 1448 (P: 69) : 2013
5	Solubility in trichloroethylene, percent by mass	99.57	IS 1216 -1978 Reaffirmed 2004
6	Softening Point ° C	53	IS 1205 -1978 Reaffirmed 2004
7	Test on residue from rolling thin film oven test:		
a	Viscosity Ratio @ 60° C	2.97	IS 1206 (Part II) -1978 Reaffirmed 2004
b	Ductility at 27° C · cm	49	IS 1208 -1978 Reaffirmed 2004

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Sub: Testing of bitumen VG-30 and VG 40 as per IS 73: 2013

**Test report on bitumen (VG-40)**

S.no	Name of the test	Test value	Method of test
1	Penetration @ 25° C	60	IS 1203 -1978 Reaffirmed 2004
2	Absolute Viscosity @ 60° C, Poises	4504.94	IS 1206 (Part II) -1978 Reaffirmed 2004
3	Kinematic viscosity @ 135° C, cSt	640.91	IS 1206 (Part III) -1978 Reaffirmed 2004
4	Flash Point ° C	285	IS 1448 (P: 69) : 2013
5	Solubility in trichloroethylene, percent by mass	99.32	IS 1216 -1978 Reaffirmed 2004
6	Softening Point ° C	54	IS 1205 -1978 Reaffirmed 2004
7	Test on residue from rolling thin film oven test:		
a	Viscosity Ratio @ 60° C	2.69	IS 1206 (Part II) -1978 Reaffirmed 2004
b	Ductility at 27° C · cm	44	IS 1208 -1978 Reaffirmed 2004

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