

Laboratory Laboratory Division, Hindustan Colas Pvt. Ltd., Plot No. 426-430, GIDC Savli Industrial Area, Village - Manjusar, Savli, Vadodara, Gujarat

Accreditation Standard ISO/IEC 17025: 2005

Certificate Number TC-7978

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Validity 10.10.2018 to 09.10.2020

Last Amended on --

Sl.	Product / Material of Test	Specific Test Performed	Test Method Specification against which tests are performed	Range of Testing / Limits of Detection
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### MECHANICAL TESTING

<b>I. BUILDINGS MATERIALS</b>				
<b>1.</b>	<b>Paving Bitumen</b>	Softening Point	IS 1205	40 °C to 100 °C
		Penetration	IS 1203	(10 to 100) mm(1/10 <sup>th</sup> )
		Absolute Viscosity @ 60 °C	IS 1206 (Part 2)	300 Poise to 4800 Poise
		Kinematic Viscosity @ 135 °C	IS 1206 (Part 3)	200 cSt to 450 cSt
		Solubility in Trichloroethylene	IS 1216	90 % to 100 %
<b>2.</b>	<b>Modified Bitumen</b>	Flash Point	IS 1448 (Part 69)	220 °C to 350 °C
		Penetration	IS 1203	(10 to 100) mm(1/10 <sup>th</sup> )
		Softening Point	IS 1205	40 °C to 100 °C
		Viscosity at 150 °C	IS 1206 (Part 1)	1 Poise to 20 Poise
		Flash Point	IS 1448 (Part 69)	220 °C to 350 °C
		Elastic Recovery at 15 °C	IS 15462 (Annexure A)	20 % to 100 %
		Separation (difference in softening point)	IS 15462 (Annexure B)	0.1 °C to 5 °C
		Test on Residue (TFOT) loss in mass	IS 9382	0.02 % to 1 %
		Test on Residue (TFOT) increase in softening point	IS 1205	0.1 °C to 10 °C
		Test on Residue (TFOT) reduction in penetration	IS 1203	1 % to 35 %
<b>3.</b>	<b>Bitumen Emulsion</b>	Test on Residue (TFOT) elastic recovery at 25 °C	IS 15462 (Annexure A)	20 % to 100 %
		Storage Stability	IS 8887(Annexure D)	0.1 % to 2 %
		Particle Charge	IS 8887(Annexure E)	Qualitative
		Residue on 600 µm sieve	IS 8887 (Annexure B)	0.001 % to 0.1 %
		Viscosity by Saybolt Furol Viscometer at 25 °C	IS 3117	20 s to 300 s

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		Viscosity by Saybolt Furol Viscometer at 50 °C	IS 3117	20 s to 300 s
		Water Content	IS 1211	0.1 % to 20 %
		Coagulation at Low Temperature	IS 8887 (Annexure C)	Qualitative
		Miscibility with water	IS 8887 (Annexure H)	Qualitative
		Distillation	IS 1213	0.1 % to 100 %
		Stability to mixing with Cement	IS 8887 (Annexure G)	0.01 % to 4 %
		Coating Ability	IS 8887 (Annexure F)	Qualitative
		Solubility in Trichloroethylene (Test on residue)	IS 1216	90 % to 100 %
		Residue by Evaporation (Test on Residue)	IS 8887 (Annexure J)	1 % to 90 %
		Penetration (Test on Residue)	IS 1203	(10 to 100) mm(1/10 <sup>th</sup> )
		Ductility (Test on Residue)	IS 1208	0.1 cm to 100 cm