

**Laboratory**                      **Laboratory Division, Hindustan Colas Private Limited, JL-128, Mouza Alichak, PS-Durgachak, PO-Khanjanchak, Haldia, District-Purba Medinipur, West Bengal**

**Accreditation Standard**    **ISO/IEC 17025: 2005**

**Certificate Number**        **TC-7729**

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**Validity**                        **16.08.2018 to 15.08.2020**

**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**

I.	<b>BUILDINGS MATERIALS</b>			
<b>1.</b>	<b>Paving Bitumen</b>	Softening Point	IS 1205	40 °C to 100 °C
		Penetration	IS 1203	10 mm to 100 mm (1/10 <sup>th</sup> )
		Absolute Viscosity (at 60 °C)	IS 1206 (Part 2)	300 Poise to 4800 Poise
		Kinematic Viscosity (at 135 °C)	IS 1206 (Part 3)	200 cSt to 900 cSt
		Solubility in Trichloroethylene	IS 1216	90 % to 100 %
		Flash Point	IS 1448 (Part 69)	220 °C to 350 °C
<b>2.</b>	<b>Modified Bitumen</b>	Penetration	IS 1203	10 mm 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 9 Poise
		Flash Point	IS 1448 (Part 69)	220 °C to 350 °C
		Elastic Recovery at 15 °C	IS 15462 (Annexure A)	20 % to 90 %
		Separation (Difference in the 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 %
		Test on Residue (TFOT) Elastic Recovery at 25 °C	IS 15462 (Annexure A)	30 % to 90 %

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3.	Bitumen Emulsion	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
		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 2 %
		Coating Ability	IS 8887 (Annexure F)	Qualitative
		Residue Solubility in Trichloroethylene	IS 1216	90 % to 100 %
		Residue by Evaporation	IS 8887 (Annexure J)	1 % to 90 %
Residue Penetration	IS 1203	10 mm to 300 mm (1/10 <sup>th</sup> )		
Residue Ductility	IS 1208	1 cm to 100 cm		