



## PRODUCT MANUAL FOR HOT APPLIED SEALING COMPOUNDS FOR JOINTS IN CONCRETE ACCORDING TO IS 1834: 1984

*This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.*

1.	<b>Product</b>	:	IS 1834: 1984
	<b>Title</b>	:	HOT APPLIED SEALING COMPOUNDS FOR JOINTS IN CONCRETE.
	<b>No. of Amendments</b>	:	NIL
2.	<b>Sampling Guidelines:</b>		
a)	<b>Raw material</b>	:	Not applicable
b)	<b>Grouping guidelines</b>	:	Sample of each grade shall be tested for all requirements to cover that grade in the scope of licence.
c)	<b>Sample Size</b>	:	2 Kg
3.	<b>List of Test Equipment</b>	:	Please refer ANNEX – A
4.	<b>Scheme of Inspection and Testing</b>	:	Please refer ANNEX – B
5.	<b>Possible tests in a day :</b>		
	i. Pour Point (Clause 4.1, Table 1) ii. Flow Test (Clause 4.1, Table 1) iii. Penetration at 25° C, 100 g, 5s, 1/ 10 (Clause 4.1, Table 1)		
6.	<b>Scope of the Licence:</b>		
	Licence is granted to use Standard Mark as per IS 1834: 1984 with the following scope		
	Name of the product	Hot Applied Sealing Compounds for Joints in Concrete	
	Grades	Grade A (Ordinary) / Grade B (Fuel Resistant).	

**ANNEX A****List of Test Equipment***Major test equipment required to test as per the Indian Standard*

<b>Sr. No.</b>	<b>Tests used in with Clause Reference</b>	<b>Test Equipment</b>
1	Pour point (Clause 4.1 )	Weighing Balance
		Container
		Stirrer
		Oil Bath or similar heating unit
2	Flow test (Clause 4.1)	Moulds as per clause B-1.1 of IS 1834
		Frame as per clause B-1.2 of IS 1834
		Oven
		Weighing Balance
		Spatula
		Air blower with temperature control
3	Extensibility (Clause 4.1)	Cement Mortar Test Blocks as per clause C-1.1 of IS 1834
		Metal Jig as per clause C-1.2 of IS 1834
		Extension Machine
		Carborundum powder
		Level glass surface
		Benzene
		Desiccator
		Temperature controlled cabinet at 0° C
		Oven
		Thermometer
		Ice tray
4	Penetration at 25° C, 100 g, 5s, 1/ 10 (Clause 4.1)	Metal or glass, flat bottom Cylindrical container
		Needle
		Water Bath
		Transfer Dish
		Penetration Apparatus
		Thermometer
		Stop Watch

		Temperature controlled test chamber
		IS sieve 300 $\mu$ m
		Weighing balance
		Air conditioner
5	Aviation fuel resistance (Clause 4.1)	Containers- 04 nos as per clause D 1.1 of IS 1834
	a) Increase in penetration as measured in Penetration test after 7 days immersion in aviation fuel	Temperature controlled cabinet
		Temperature controlled water bath
		IS sieve 300 $\mu$ m
		Environmental Test Chamber
		Thermometer
	b) Change in mass after 7 days immersion in aviation fuel	Flat-bottomed cylindrical metallic containers- 02 Nos
		Hot Plate
		Weighing balance
		Temperature controlled cabinet with thermometer
		Sieve
		Aviation Fuel

*The above list is indicative only and may not be treated as exhaustive.*

**ANNEX B**

**Scheme of Inspection and Testing**

**1. LABORATORY** - A laboratory shall be maintained which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

**1.1** The manufacturer shall prepare a calibration plan for the test equipment.

**2. TEST RECORDS** – The manufacturer shall maintain test records for the tests carried out to establish conformity.

**3. LABELLING AND MARKING** – As per the requirements of IS 1834: 1984.

**4. CONTROL UNIT – Sealing** compound of same grade manufactured in a day shall constitute a control unit.

**5. LEVELS OF CONTROL** - The tests as indicated in column 1 of Table 1 and the levels of control in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

**5.1** All the production which conforms to the Indian Standards and covered by the licence should be marked with Standard Mark.

**6. REJECTIONS** – Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016.

**TABLE 1**

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Levels of Control		
Cl.	Requirement	Test Method			No. of Sample	Frequency	Remarks
		Clause	Reference				
<b>4</b>	<b>Tests and physical requirements</b>						
4.1 Table 1 (i)	Pour Point	Appendix A	IS 1834	R	One	Each control Unit	In case of failure in a particular requirement, samples from all mixing of a composite sample shall be tested for that requirement. The defective mixing so found shall be tested till it is suitably corrected or rejected. (Please see Note 1)
4.1 Table 1 (ii)	Flow Test	Appendix B	IS 1834	R	One	Each control Unit	
4.1 Table 1 (iii)	Extensibility	Appendix C	IS 1834	R	One	Each control Unit	
4.1 Table 1 (iv)	Penetration	4.1	IS 1834 IS 1203	R	One	Each control Unit	
4.1 Table 1 (v)	<b>Aviation fuel Resistance (Applicable for Grade B only)</b>						
	a) Increase in penetration as measured in Penetration test after 7 days immersion in aviation fuel	Appendix D	IS 1834 IS 1203	R	One	Every 10 <sup>th</sup> control Unit	If the sample fails, all subsequent control units shall be tested till five consecutive samples conform to these requirements.
	b) Change in mass after 7 days immersion in aviation fuel	Appendix E	IS 1834 IS 1203	R	One	Every 10 <sup>th</sup> control Unit	

Note-1: A composite sample shall be prepared by drawing equal quantity of material from each mixing produced in a day. Care shall be taken while melting these samples for preparing test specimen. This compound shall be continuously agitated, but shall not be heated to a temperature 20 °C above its pour point. The test specimen shall be poured in succession from the same composite sample, which shall not be mixed.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification for approval by BO Head.