



**PRODUCT MANUAL FOR  
PREFORMED FILLERS FOR EXPANSION JOINTS IN CONCRETE  
PAVEMENTS AND STRUCTURES (NON-EXTRUDING AND  
RESILIENT TYPE) – POLYMER BASED  
ACCORDING TO IS 1838 (PART 3): 2011**

*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 1838 (Part 3): 2011
	<b>Title</b>	:	Preformed Fillers for Expansion Joints in Concrete Pavements and Structures (Non-Extruding and Resilient Type) – Polymer Based
	<b>No. of Amendments</b>	:	1
2.	<b>Sampling Guidelines:</b>		
a)	<b>Raw material</b>	:	As per clause 3 of IS 1838 (Part 3): 2011
b)	<b>Grouping guidelines</b>	:	NA
c)	<b>Sample Size</b>	:	100 mm x 100 mm – 5 Nos
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>	:	Please refer ANNEX – C
6.	<b>Scope of the Licence:</b>		
	“Licence is granted to use Standard Mark as per IS 1838 (Part 1) :1983 with the following scope:		
	Name of the product	Preformed Fillers for Expansion Joints in Concrete Pavements and Structures (Non-Extruding and Resilient Type) – Polymer Based	

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

<b>Sl. No.</b>	<b>Tests used in with Clause Reference</b>	<b>Test Equipment</b>
1.	Dimensions and Tolerances (Clause 5)	- Steel tape - Micrometer
2.	Recovery, Compression [Clause 6, Table 1(ii) and (iii)]	- Apparatus as per Clause 4.2 and Fig. 1 of IS 10566: 1983 - Weighing balance
3.	Extrusion [Clause 6, Table 1(iv)]	- Apparatus as per Clause 5.2 of IS 10566: 1983
4.	Water absorption [Clause 6, Table 1(v)]	- Desiccator - Conditioning chamber to maintain temperature of $20 \pm 2$ °C - Weighing balance - Thermostatically controlled water bath - Blotting paper
5.	Density [Clause 6, Table 1(vi)]	- Desiccator - Conditioning chamber to maintain temperature of $20 \pm 2$ °C - Weighing balance - Vernier calliper
6.	Weathering [Clause 6, Table 1(vii)]	- Hot air oven to maintain temperature of $75 \pm 1$ °C - Pan container - Freezing chamber - Water bath

*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 equipments.

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

**3. LABELLING AND MARKING** – As per the requirement of IS 1838 (Part 3): 2011.

**4. CONTROL UNIT** – All the fillers produced from identical raw material under similar conditions of manufacturing 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				
5	Dimensions and tolerances	5.1, 5.2	IS 1838 (Part 3)	R	All	-	Length, width and thickness shall be as agreed to between the purchaser and manufacturer
<b>6, Table 1</b>	<b>Physical Requirements</b>						
(i)	Resistance to handling	6, Table 1	IS 1838 (Part 3)	-	Two	Each control unit	-
(ii)	Recovery	6, Table 1	IS 1838 (Part 3)	R	Two	Each control unit	-
(iii)	Compression	6, Table 1	IS 1838 (Part 3)	R	Two	Each control unit	-
(iv)	Extrusion	6, Table 1	IS 1838 (Part 3)	R	Two	Each control unit	-
(v)	Water absorption	6, Table 1	IS 1838 (Part 3)	R	Two	Each control unit	-
(vi)	Density	6, Table 1	IS 1838 (Part 3)	R	Two	Each control unit	-
(vii)	Weathering	6, Table 1	IS 1838 (Part 3)	R	One	Every 10 <sup>th</sup> control unit	-

Note-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled by the Bureau.

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.

**ANNEX C**

**Possible tests in a day**

- (i) Dimensions and tolerances (Clause 5)
- (ii) Resistance to handling (Clause 6, Table 1)
- (iii) Recovery (Clause 6, Table 1)
- (iv) Compression (Clause 6, Table 1)
- (v) Extrusion (Clause 6, Table 1)