



उत्पाद मानुयल
आई एस 17897 : 2022 के अनुसार
पत्थर-पॉलीमर मिश्रित फर्श टाइलें और तख्ते के लिए

दस्तावेज संख्या- पी एम/आई एस 17897/1/अगस्त 2023

भारतीय मानक ब्यूरो (अनुरूपता मूल्यांकन) विनियम की स्कीम-I के तहत यह उत्पाद मानुयल प्रमाणीकरण के प्रचलन में रीति और पारदर्शिता के सुसंगत सुनिश्चित करने के लिए सभी क्षेत्रीय/शाखा कार्यालयों एवं लाइसेंस धारियों द्वारा संदर्भ सामग्री के रूप में उपयोग किया जाएगा। बीआईएस लाइसेंस/प्रमाण पत्र प्राप्त करने के इच्छुक भावी आवेदकों द्वारा भी इस दस्तावेज का उपयोग किया जा सकता है।

PRODUCT MANUAL FOR
STONE-POLYMER COMPOSITE FLOORING TILES AND PLANKS
ACCORDING TO IS 17897:2022

Document No.- PM/IS 17897/1/Aug 2023

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

भारतीय मानक ब्यूरो
BUREAU OF INDIAN STANDARDS
मानक भवन, ९, बहादुर शाह ज़फ़र मार्ग
Manak Bhawan, 9, Bahadur Shah Zafar Marg
नई दिल्ली – ११०००२
New Delhi – 110002



PRODUCT MANUAL FOR STONE-POLYMER COMPOSITE FLOORING TILES AND PLANKS ACCORDING TO IS 17897:2022

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.	Product	:	IS 17897:2022
	Title	:	Stone-Polymer Composite Flooring Tiles and Planks
	No. of Amendments	:	Nil
2.	Sampling Guidelines:		
a)	Raw material	:	Clause 4 of IS 17897:2022
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	(20 Planks/Tiles) and 2 sheets of 1m x 1m
3.	List of Test Equipment	:	Please refer ANNEX – B
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – C
5.	Possible tests in a day		All Tests except Resistance to staining, Color fastness to daylight & Flammability Test
6.	Scope of the Licence :		
	Licence is granted to use Standard Mark as per IS 17897:2022 with the following scope:		
	Name of the product		Stone-Polymer Composite Flooring Tiles and Planks
	Type		With/Without Locking System
	Nominal Sizes		Length x Width x Thickness

BUREAU OF INDIAN STANDARDS
Manak Bhawan, 9, Bahadur Shah Zafar Marg,
New Delhi – 110002

ANNEX A

Grouping Guidelines

1. Stone-Polymer Composite Flooring Tiles and Planks as per IS 17897:2022 are categorized as follows:
 - a) Nominal Sizes: length x width x thickness (as agreed upon between the purchaser and manufacturer or as declared by the manufacturer)
 - b) Type: With/ without Locking System
2. Considering the above, grouping guidelines as given below shall be followed for GoL/ CSoL:
 - a. One sample of maximum nominal size shall be tested for all requirements to cover tiles/ planks of all nominal sizes up to and including the size tested.
 - b. Tiles/ planks with Locking System shall be tested to cover tiles/planks with locking system in the scope of licence. Similarly Tiles/ planks without Locking System shall be tested to cover tiles/planks without locking system in the scope of licence
3. The Firm shall declare the varieties of tiles/planks they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.
4. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation, to the extent possible.

ANNEX B
List of Test Equipment

Major test equipment required to test as per the Indian Standard

S. No	Tests used in with Clause Reference	Test Equipment
1.	Dimensions and squareness	- Thickness Dial Gauge - Micrometer - Vernier caliper - Steel Measuring Tape - Feeler Gauge - L-shaped Metal jig 600 X 1000 MM - L-shaped Metal jig 1000 X 1000 MM - Metal Flat Surface 2507 X 1265 MM SIZE
2.	Dimensional stability	- Travelling Microscope, Marking Tool (Steel Plate 180 X 180mm, 12.5 mm thick) - Oven Dig. Temp. Controller - Dig. Timer
3.	Peel strength	- Tensile Strength Machine - Ethyl acetate as per IS 229 - Beaker 250 ml, 500 ml
4.	Residual indentation	- Residual Indentation Tester (360 N) - Indenting Tool (Cylindrical Rod 4.5 mm diameter & edge having radius 0.15 mm) - Thickness Gauge (capable to exert a pressure of 0.14 ± 0.035 N/mm²)
5.	Resistance to staining	- 5 % NaOCL (Sodium Hypochlorite), - Baking Soda, - Distilled Water, - Ethanol Solution, - Household Ammonia, - 10 % citric acid, - vegetable oil, coffee, Tea, Tomato Ketchup, - Mustard oil, - 10 % Povidone Iodine, - Black Permanent Marker, - Pencil crayon, - Black shoe Polish, - Cotton Ball, - Acetone Stiff Nylon, - Bristle Brush, - One Kg Weight
6.	Abrasion resistance	- Tabor Abrasion M/C with counter CS 10 Wheel, Single abrader, Brush, 750 grams for each arm

		- Vacuum unit - Drill M/c for creating Hole in tile discs for abrasion test - Weighing Balance
7.	Gap & Height difference	- Feeler Gauge - Hammer
8.	Locking strength of both sides	- UTM - Feeler gauge - Tile cutter
9.	Flammability test	- Stop Watch - Combustion chamber - Sample Holder as per A 2.2 of IS 15061 - Gas burner of ID 9.5 ± 0.50 mm - Test Gas of calorific value near 38 MJ/m³ - Metal cone as per A 2.5 of IS 15061 - Fume cupboard as per A 2.7 of IS 15061 - Specimen holder 560 mm Height as per B 2.1 of IS 15061 - Burner as per B 2.2 of IS 15061 - Ventilation system to exert gas and combustion product as per B 2.3 of IS 15061 - Template as per B 2.4 of IS 15061 - Maker Threads of white mercerized cotton threads having maximum linear density of 50 texts - Horizontal Tester Timer - Vertical Tester Timer - Propane Gas
10.	Colour fastness to daylight exposure	- Rack consists of five wooden battens, Upper battens shall be 65 mm and lower battens shall be 38 mm wide, B 3.1.2 as per IS 9766 - Wooden flaps 50 mm wide, B 3.1.2.1 as per IS 9766 - Wire Screen removable rectangle frame, shall be 180-micron woven wire cloth comply with IS 2405, B 3.1.3 as per IS 9766 - Exposure Case Location shall open and facing south, B 3.2 as per IS 9766 - Color Fastness Table & Grey Scale
11.	General	- AC - Digital Thermometer / Hygrometer - Clock - Tile Cutter - Humidity Chamber with Digital Temperature indicator & Humidity Controller - Exposure Case dimensions 900 x 600 x 50 mm covered with framed lid, B 3.1 as per IS 9766 - Lid 3 mm thick area at least 880 X 550 mm, B 3.1.1 as per IS 9766

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

ANNEX C

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 17897:2022. The Standard Mark, as given in the Schedule of the licence, shall be indelibly and legibly marked on the package of tiles/planks, provided always that the tiles/planks thus marked conforms to all the requirements of the specification. In addition, the licence no. CM/L-_____and details of BIS website shall be marked on the package of tiles/planks as follows: “For details of BIS certification please visit www.bis.gov.in”.
- 4. CONTROL UNIT** – All tiles of same size and type manufactured from identical raw material and under similar conditions of manufacturing in a week 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 Standard 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 Methods			No. of Sample	Frequency	Remarks
		Clause	Reference				
4	Material	4	IS 17897: 2022	S	One	Each consignment	No further testing is required,if material received is accompanied with the test certificate or ISI Marked.
6.1	Workmanship, Finish, Colour and Appearance	6.1	IS 17897: 2022	R	Firm to have adequate in-process controls to check compliance of this parameter as per the requirements given in the Indian Standard. Appropriate records shall be maintained by the manufacturer for evidence of conformity		
6.2	Dimensions (length, width & thickness) & Squareness	Table 1 & table 2 (Cl. 6.2.3, 6.3 (i) and 8.3)	IS 17897: 2022	R			
Table-2 (6.3 and 8.3)							
ii)	Dimensional Stability (%)	7.1(v)	IS 3464	R	One	Each Control Unit	
iii)	Peel Strength (kN/m)	7.1(xii)	IS 3464	R	One	Each Control Unit	
iv)	Residual Indentation (mm)	7.1(x)	IS 3464	R	One	Each Control Unit	
v)	Resistance to Staining, Cleanability score	Annex A	Annexure A	R	One	Each Control Unit	
vii)	Abrasion Resistance (% weight)	Annex B	Annexure B	R	One	Each Control Unit	

vii)	Gap difference (mm) 1. Average Value 2. Maximum Value	Annex C	Annexure C	R	Ten	Each Control Unit	
viii)	Height Difference(mm) 1. Average Value 2. Maximum Value	Annex C	Annexure C	R	Ten	Each Control Unit	
ix)	Locking Strength	Annex D	IS 17897	R	One	Each Control Unit	
x)	Flammability Test Horizontal Vertical	Annex. A	IS 15061	R	One	Once in three months	
xii)	Colour Fastness to Daylight exposure	Annex. B	IS:9766	R	One	Once in three months	

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.