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IS 3709 (1966): Mastic cement for bedding of metal windows
[CHD 20: Paints, Varnishes and Related Products]



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IS : 3709 - 1966
(Reaffirmed 1986)

Indian Standard
**SPECIFICATION FOR
MASTIC CEMENT FOR BEDDING OF
METAL WINDOWS**

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
NEW DELHI 110002

Indian Standard

SPECIFICATION FOR MASTIC CEMENT FOR BEDDING OF METAL WINDOWS

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Indian Standard

SPECIFICATION FOR MASTIC CEMENT FOR BEDDING OF METAL WINDOWS

0. FOREWORD

0.1 This Indian standard was adopted by the Indian Standards Institution on 30 July 1966, after the draft finalized by the Paints and Allied Products Sectional Committee had been approved by the Chemical Division Council.

0.2 Mastic cement is used for bedding one metal window into another; for bedding metal windows into wooden frames; or for bedding metal frames into masonry or concrete. An Indian Standard specification stipulating the minimum quality requirements of this material, it was felt, would help in the proper development of this product. Mastic cement is required to ensure satisfactory adhesion to wood, masonry, concrete and metal. Apart from this, it is expected to be suitable for taking paint without lifting, bleeding or cracking. The setting and keeping properties of the material are also important.

0.3 The Sectional Committee felt the need to prescribe tests for flexibility and its retention in this standard. However, in the absence of any standardized procedure for the same, it was decided that these tests may be considered for inclusion when complete details are available.

0.4 This standard is one of the series of Indian Standard specifications on fillers, stoppers and putties. Other specifications printed so far in the series are:

- * IS : 110-1950 Ready mixed paint, brushing, grey filler, for enamels
- IS : 345-1952 Wood filler, transparent, liquid
- * IS : 419-1953 Putty, for use on wooden frames
- IS : 420-1953 Putty, for use on metal frames
- IS : 421-1953 Jointing paste, for bedding moulding on coaching stock
- IS : 423-1961 Plastic wood, for joiners filler (*revised*)
- IS : 426-1961 Paste filler, for colour coats (*revised*)
- IS : 2468-1963 Whiting for paints

0.5 For the purpose of deciding whether a particular requirement of this standard is complied with, the final value, observed or calculated, expressing the result of a test or analysis, shall be rounded off in accordance with IS : 2-1960†. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.

* Since revised.

† Rules for rounding off numerical values (*revised*).

1. SCOPE

1.1 This standard prescribes the requirements and the methods of sampling and test for mastic cement for bedding of metal windows. The material is intended for application by hand or with a putty knife.

2. TERMINOLOGY

2.1 For the purpose of this standard, the definitions given in IS : 1303-1963* shall apply.

3. REQUIREMENTS

3.1 Description — The material shall be in the form of a homogeneous paste, which, after working in the hands, shall have a good plastic quality. The material shall work readily and smoothly under a knife without crumbling or cracking and without sticking unduly to hand or knife.

3.2 Composition — The material shall consist of ingredients mixed in the proportions specified below:

	Percent by Weight
Whiting (in accordance with 3.2.1)	80 to 85
Oils (in accordance with 3.2.2)	15 to 20

3.2.1 Whiting — The whiting used shall conform to IS : 63-1964†. Up to 10 percent of whiting may be replaced by asbestos fibrous powder. One to two percent of this whiting shall be replaced by yellow ochre (see IS : 47-1950‡) to distinguish it from putty for fixing glass on metal frames.

3.2.2 Oils — The oils shall consist of a mixture of 85 percent of raw linseed oil (conforming to IS : 75-1950§) and 15 percent of castor oil (conforming to IS : 435-1954||)

3.3 Adhesion — The material shall satisfactorily adhere to wood, masonry and concrete as well as to metal frames of painted or etched galvanized steel, or pre-treated aluminium.

3.4 Water Content — The material shall contain not more than 0.5 percent of water, when determined by the method prescribed in 10 of IS : 85-1950¶.

3.5 Setting Properties — The material, when tested as prescribed in 3.5.1 shall show no cracks of sagging or the film and shall remain plastic.

*Glossary of terms relating to paints (revised).

†Specification for whiting for paints (revised).

‡Specification for ochre for paints.

§Specification for linseed oil, raw, for paints.

||Specification for castor oil.

¶Methods of test for oil pastes for paints.

3.5.1 Spread the material to the thickness of 5 to 6 mm on a 300 × 300 mm mild steel plate of approximately 2.5 mm thickness and allow it to remain in a vertical position under standard atmospheric conditions (see IS : 196-1966*) for 7 days. Note cracks or sagging of the film, if any, on the mild steel plate.

3.6 Keeping Properties — When stored under cover in a dry place in the original sealed container under normal temperature conditions, the material shall not cake or harden in the container but shall retain the above properties for six months after the date of manufacture, which shall be subsequent to the date of placing the contract.

4. PACKING AND MARKING

4.1 Packing — Unless otherwise agreed to between the purchaser and the supplier, the material shall be packed in metal containers conforming to IS : 2134-1962†.

4.2 Marking — The containers shall be marked with name of the material; manufacturer's name and trade-mark, if any; weight of the material; batch number and month and year of manufacture.

4.2.1 The containers may also be marked with the Standard Mark

NOTE — The use of the Standard Mark is governed by the provisions of the Bureau of Indian Standards Act, 1986 and the Rules and Regulations made thereunder. The Standard Mark on products covered by an Indian Standard conveys the assurance that they have been produced to comply with the requirements of that standard under a well defined system of inspection, testing and quality control which is devised and supervised by BIS and operated by the producer. Standard marked products are also continuously checked by BIS for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the Standard Mark may be granted to manufacturers or producers may be obtained from the Bureau of Indian Standards.

4.3 Other details of packing and marking shall be in accordance with the instructions given by the purchaser.

5. SAMPLING

5.1 Preparation of Test Sample — Representative samples of the material shall be drawn as prescribed under 3 of IS : 85-1950‡.

5.2 Number of Tests — Tests for all characteristics specified shall be conducted on the composite sample.

*Atmospheric conditions for testing (*revised*).

†Specification for round tins for general purposes.

‡Methods of test for oil pastes for paints.

5.3 Criteria for Conformity — The lot shall be considered as conforming to the specification, if the composite sample satisfies all the requirements specified in the standard.

6. TEST METHODS

6.1 Tests shall be conducted according to the methods prescribed in IS : 85-1950* and in 3.3, 3.5 and 3.6 of this standard. Reference to relevant clause of IS : 85-1950* is given in 3.4.

6.2 Quality of Reagents — Unless specified otherwise, pure chemicals and distilled water (*see* IS : 1070-1960†) shall be employed in tests.

NOTE — ' Pure chemicals ' shall mean chemicals that do not contain impurities which affect the results of analysis.

*Methods of test for oil pastes for paints.

†Specification for water, distilled quality (*revised*). (Since revised).

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