

# इंटरनेट

# मानक

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“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 3678 (1966): Ready mixed paint, thick white, for lettering [CHD 20: Paints, Varnishes and Related Products]



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Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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**IS : 3678 - 1966**

( Alternative to IS : 167 - 1950 )

( Reaffirmed 2009 )

***Indian Standard***  
**SPECIFICATION FOR**  
**READY MIXED PAINT, THICK WHITE,**  
**FOR LETTERING**

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Fourth Reprint MAY 1992

( Incorporating Amendment No. 1 )

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**BUREAU OF INDIAN STANDARDS**

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NEW DELHI 110002

**AMENDMENT NO. 3 OCTOBER 1989**  
**TO**  
**IS : 3678 - 1966 SPECIFICATION FOR READY**  
**MIXED PAINT, THICK WHITE, FOR LETTERING**

( *Page 2, clause 3.1.1.1* ) — Delete.

( CDC 8 )

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Reprography Unit, BIS, New Delhi, India

**AMENDMENT NO. 2   JULY 1988**  
**TO**  
**IS : 3678 - 1966 SPECIFICATION FOR READY MIXED**  
**PAINT, THICK WHITE, FOR LETTERING**

( *Page 2, clause 3.5* ) — Delete.

[ *Page 3, Table 1, Sl No. (vi)* ] — Add the following new requirement after Sl No. (vi):

(1)	(2)	(3)	(4)
vii)	Wet opacity	Between — 10 percent and + 20 percent of the approved sample	10

( CDC 8 )

***Indian Standard***  
**SPECIFICATION FOR**  
**READY MIXED PAINT, THICK WHITE,**  
**FOR LETTERING**

**0. FOREWORD**

**0.1** This Indian Standard was adopted by the Indian Standards Institution on 27 July 1966 as an emergency standard. After the original emergency standard had been reviewed by the Paints and Allied Products Sectional Committee, and had been approved by the Chemical Division Council, this amendment is being issued to remove the emergency character of the standard.

**0.2** This standard was originally issued as IS : 3678E-1966 in accordance with the simplified emergency procedures, for a material alternative to that covered by IS : 167-1950\* to meet the urgent needs of the country. It was prepared with the assistance of an *ad hoc* Consultative Group composed of representatives of Ministry of Defence; Directorate General of Supplies and Disposals ; Ministry of Railways; Indian Paint Association; and other manufacturers, technologists and testing authorities under the convenership of Shri K. N. R. Sharma, Development Officer (Paints), Directorate General of Technical Development, New Delhi.

**0.2.1** In the formulation of this standard, due consideration has been given to meet the stringent foreign exchange position not only by replacing imported raw materials with alternative indigenous products but also by economizing the use of indigenous raw materials, such as vegetable oil, which may thus be released for export. In this standard, use of lead and zinc pigments has been eliminated.

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**1. SCOPE**

**1.1** This standard prescribes the requirements and the methods of sampling and test for ready mixed paint, thick white, for lettering.

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\*Specification for ready mixed paint, thick white, for lettering.

## IS : 3678 - 1966

### 2. TERMINOLOGY

**2.1** For the purpose of this standard, the definitions given in IS : 101-1964\* and IS : 1303-1963† shall apply.

### 3. REQUIREMENTS

**3.1 Composition** — The material shall be manufactured with the following ingredients mixed in suitable proportions so as to satisfy the requirements of this standard.

**3.1.1 Pigment** — The pigment used shall consist of the following ingredients mixed in the proportions, percent by weight, specified below:

- |   |            |           |
|---|------------|-----------|
| a) Titanium dioxide ( conforming to IS : 411-1953‡ ), | <i>Min</i> | 40.0      |
| b) Argillaceous matter,                               | <i>Max</i> | 10.0      |
| c) Whiting ( conforming to IS : 63-1964§ ),           | <i>Max</i> | 10.0      |
| d) Other extenders                                    |            | Remainder |

**3.1.1.1** Gypsum, calcium sulphate, lead and zinc pigments shall not be used.

**3.1.2 Medium** — The medium shall consist of suitable bodied drying oils or oil modified alkyd or both or other synthetic resin varnish so as to satisfy the requirements of this standard. The total volatile matter content on the paint, however, shall not exceed 20 percent.

**3.2** The material shall also comply with the requirements given in Table 1.

**3.3 Water Content** — If water is suspected to be present in the material, it shall not exceed 0.5 percent when tested as prescribed in **14** of IS : 101-1964\*.

**3.4 Weight in kg/10 Litres** — The weight in kg/10 litres of the material, when tested in accordance with **25** of IS : 101-1964\*, shall be within  $\pm 3$  percent of the sample approved against the specification, if any.

**3.5 Optional Requirements** — In addition, if agreed to between the purchaser and the supplier, the spreading capacity, spreading time and wet opacity shall be determined in accordance with the relevant methods of test as given in IS : 101-1964\* and the results recorded on the sample offered for approval against the specification. In the case of supplies offered against any approved sample to this specification, these characteristics shall be within 90 percent of the approved sample.

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\*Methods of test for ready mixed paints and enamels ( *second revision* ).

†Glossary of terms relating to paints ( *revised* ).

‡Specification for titanium dioxide for paints ( *since revised* ).

§Specification for whiting for paints ( *revised* ).



**TABLE 1 REQUIREMENTS FOR READY MIXED PAINT,  
THICK WHITE, FOR LETTERING**

( Clause 3.2 )

SL No.	CHARACTERISTIC	REQUIREMENT	METHOD OF TEST ( REF TO CL NO. IN IS : 101-1964* )
(1)	(2)	(3)	(4)
i)	Drying time:		
	a) Surface dry	Between 2 to 4 hours	7.1, 7.2 & 7.3
	b) Hard dry	Not more than 18 hours	
	c) Tack free	Not more than 24 hours	
ii)	Consistency	Smooth and uniform, suitable for lettering	7.4
iii)	Finish	Smooth and semi-glossy to glossy	7.5
iv)	Colour	White, free from cream or blue hue	11
v)	Flash point	Not below 30°C	24
vi)	Keeping properties	Not less than one year	31

\*Methods of test for ready mixed paints and enamels ( *second revision* ).**4. PACKING AND MARKING**

**4.1 Packing** — The material shall be packed as agreed to between the purchaser and the supplier.

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

**4.2.1** The containers may also be marked with the ISI Certification Mark.

NOTE — The use of the ISI Certification Mark is governed by the provisions of the Indian Standards Institution ( Certification Marks ) Act and the Rules and Regulations made thereunder. The ISI 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 ISI and operated by the producer. ISI marked products are also continuously checked by ISI for conformity to that standard as a further safeguard. Details of conditions under which a licence for the use of the ISI Certification Mark may be granted to manufacturers or processors, may be obtained from the Indian Standards Institution.

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

**IS : 3678 - 1966**

## **5. SAMPLING**

**5.1** Representative samples of the material shall be drawn as prescribed under **3** of IS : 101-1964\*.

## **6. TEST METHODS**

**6.1** Tests shall be conducted as prescribed in IS : 101-1964\*. References to the relevant clauses of IS : 101-1964\* are given in **3.3, 3.4, 3.5** and in col 4 of Table 1.

**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.

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\*Methods of test for ready mixed paints and enamels ( *second revision* ).

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

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