

## **Eco-mark Scheme**

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### **ECOMARK CRITERIA FOR ARCHITECTURAL PAINTS AND POWDER COATINGS**

**(The Gazette of India, Extraordinary, Part II-Section 3(i), No. 364, Sept. 7, 1995)**

#### **DEFINITION OF TERMS :**

In the following criteria:

"aromatic hydrocarbons" means organic substances that have a benzene ring in their molecular structure;

"halogenated solvent" means any organic solvent containing halogens including fluorine, chlorine, bromine and iodine;

"solvent based" means paints and coatings that use an organic solvent as the primary volatile component;

"volatile organic compound" means any organic compound which has a vapour pressure more than 13.3 Pa at 25 O C in accordance with ASTN test method D3960-90."

#### **GENERAL REQUIREMENTS :**

- All formulations of paints shall meet relevant standards of Bureau of Indian Standards pertaining to quality and performance.
- The product manufacturer must produce the consent clearance as per the provisions of Water (Prevention & Control of Pollution) Act, 1974 and Air (Prevention & Control of Pollution) Act, 1981 along with the authorisation, if required, under Environment (Protection) Act, 1986 and rules made thereunder to Bureau of Indian Standards while applying for the ECOMARK.
- The product must display a list of critical ingredients in descending order of quantity present. The list of such ingredients shall be identified by Bureau of Indian Standards.
- The product packaging may display in brief the criteria based on which the product has been labelled as Environment Friendly.
- The product may be sold along with instructions for proper use so as to maximise product performance and minimise wastage.
- The material used for product packaging shall be recyclable, reusable or biodegradable.

#### **PRODUCT SPECIFIC REQUIREMENTS :**

- Water based Coatings (inclusive of dry distemper and cement paints)

The product shall not contain more than 5 per cent volatile organic compounds (VOC).

Product shall not be formulated with mercury and mercury compounds or be tinted with pigments of lead, cadmium, chromium VI and their oxides. Excluded are natural impurities or impurities entailed by the production process up to the amount of 0.1 percent by weight which are contained in the raw material.

The product shall not be formulated or manufactured with :-

- Free formaldehyde in excess of 10 mg per kg. of paint
- halogenated solvents
- benzene & poly-aromatic hydrocarbons, and
- other aromatic hydrocarbons

**Note:** The manufacturer shall provide documentary evidence by way of certificate or declaration to this effect to Bureau of Indian Standards while applying for Ecomark.

- Powder Coatings

The product shall be free from any VOC (Volatile Organic Compounds).

Product shall not be formulated with mercury and mercury compounds or be tinted with pigments of lead, cadmium, chromium VI and their oxides. Excluded are natural impurities or impurities entailed by the production process up to the amount of 0.1 percent by weight which are contained in the raw material.

The product shall not be formulated or manufactured with free formaldehyde in excess of 10 mg per kg of paint.

**Note:** The manufacturer shall provide documentary evidence by way of certificate or declaration to this effect to Bureau of Indian Standards while applying for Ecomark.

- Solvent based high solid coatings

The product shall not contain volatile organic compounds (VOC) in excess of 380 g/l.

Product shall not be formulated with mercury and mercury compounds or be tinted with pigments of lead, cadmium, chromium VI and their oxides. Excluded are natural impurities or impurities entailed by the production process up to the amount of 0.1 percent by weight which are contained in the raw material.

The product shall not be formulated or manufactured with :

- free formaldehyde in excess of 10 mg per kg. of paint
- halogenated solvents
- benzene & poly-aromatic hydrocarbons, and
- other aromatic hydrocarbons in excess of 10 percent by weight

**Note:** The manufacturer shall provide documentary evidence by way of certificate or declaration to this effect to Bureau of Indian Standards while applying for Ecomark.

**The following BIS standards have been amended incorporating the above Ecomark requirements :**

1.	IS 164:1951	Ready mixed paint for road marking (first revision)
2.	IS 427:1965	Distemper, dry, colour as required (revised)
3.	IS 428:1969	Distemper, oil emulsion, colour as required (revised)
4.	IS 5410:1992	Cement paints (first revision)
5.	IS 5411(Pt.1):1974	Plastic emulsion paint for interior use (first revision)
6.	IS 5411(Pt.2):1974	Plastic emulsion paint for exterior use
7.	IS 13871:1993	Powder coating

**he incorporation of the Ecomark requirements, in the following BIS standards, are under process :**

1.	IS 96:1985	Oil paste for paints interior, white (first revision)
2.	IS 123:1962	Ready mixed paint, brushing, finishing, semi-gloss for general purposes to Indian Standard colours Nos. 445, 446, 448, 449, 451, 473 and red oxide (colour unspecified) (revised)
3.	IS 289:1963	Aluminium paste for paints (revised)
4.	IS 423: 1961	Plastic wood for joiners filter (revised)
5.	IS 1232:1964	Ready mixed paint, brushing, yellow ochre, semi-gloss, for general purposes (revised)
6.	IS 3709 : 1966	Mastic cement for bedding of metal window