

Ecomark Criteria for Architectural Paints and Powder Coatings

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% 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% 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% 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% 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 incorporated the above Ecomark requirements:

Indian Standards	Year of Incorporation	Description
IS164:2015	1993	Ready mixed paint for road marking
IS 427:2013	1991	Distemper, dry, colour as required
IS 428:2013	1991	Washable Distemper
IS 5410:2013	1993	Cement paints
IS 13871:1993 Reaffirmed Year 2009	1991	Powder coating

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

Indian Standards	Year of Incorporation	Description
IS 96:1985 Reaffirmed Year 1993	Inactive	Oil paste for paints interior, white
IS 123:1962	Inactive	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)
IS 289:1963 Reaffirmed Year 2009	-	Aluminium paste for paints (revised)
IS 423: 1961 Reaffirmed Year	Inactive	Plastic wood for joiners filter

2001		
IS 1232:1964 Reaffirmed Year 1993	Inactive	Ready mixed paint, brushing, yellow ochre, semi- gloss, for general purposes
IS 3709 : 1966 Reaffirmed Year 2009	-	Mastic cement for bedding of metal window
IS 5411(Pt.1):1974 Reaffirmed Year 1993	Inactive	Plastic emulsion paint for interior use
IS 5411(Pt.2):1974 Reaffirmed Year 1993	Inactive	Plastic emulsion paint for exterior use

Source: <http://cpcb.nic.in/EnvironmetalPlanning/Eco-label/plants.pdf>