Indian Standard

CODE OF PACKAGING OF NATURAL RUBBER LATEX IN DRUMS

(First Revision)

1 SCOPE

This code prescribes the methods of packing and marking of natural rubber latex in clean, disinfected and painted drums.

2 REFERENCES

The following Indian Standards are necessary adjuncts to this standard:

IS No.	*Title*
158 : 1981	Ready mixed paint, brushing bituminous, black, lead free, acid alkali and heat resisting (*third revision*)
1783 (Part 1) : 1983	Drum, large, fixed ends: Part 1 Grade A drums (*second revision*)
1783 (Part 2) : 1988	Drums, large, fixed ends: Part 1 Grade B drums (*second revision*)
3321 : 1973	Formaldehyde solution (*first revision*)
5430 : 1981	Ammonia preserved concentrated natural rubber latex (*first revision*)
11001 : 1984	Double centrifuged natural rubber latex
13101 : 1991	Ammonia preserved creamed natural rubber latex

3 PACKING DRUMS

3.1 Selection of Drums

Light duty mild steel drums conforming to the sizes and dimensions given in IS 1783 (Part 1) : 1983 or IS 1783 (Part 2) : 1983 free from rust and other contaminations or clean high density polyethylene drums of similar capacity should be used.

3.1.1 If the latex is to be used for the production of baby teats, surgeon's gloves, condoms, and other medical applications, it will be essential to use new drums only.

3.2 Painting of the drums to provide an inert lining.

After thorough cleaning and drying, inside of the drums and the inside bottom surface of the bungs should be painted with two coats of an alkali resistant bituminous paint conforming to IS 158 : 1981. However, painting is not necessary in the case of HDPE drums.

3.2.1 In addition to the properties specified in IS 158 : 1981, the paint should be resistant to ammonia preserved latex, and should be free from iron, copper and manganese.

3.2.2 When the paint is perfectly dry, the cut side should be welded back. Charred paint, along the weld inside the drum, should be removed with a swab, and coated afresh with the paint, sepecified in **3.2** and **3.2.1**.

3.3 Disinfection

The disinfected drums should be kept with bung holes closed and opened only at the time of filling.

3.3.1 Drums which have been kept in storage for long period, should be rinsed with water, drained and disinfected just prior to filling.

NOTE — One percent solution of formalin (*see* IS 3321 : 1973) or chlorinated trisodium phosphate or 0·5 percent phenol based disinfactant (solution containing cresylic acid, orthohydroxydiphenyl and soap as active ingredient) may be used as disinfactant.

4 FILLING PROCEDURE

4.1 Latex may be filled into the drums by gravity from bulk storage tanks, following the procedure given in **4.1.1**.

4.1.1 Both bung holes should be kept open. A suitable tube filled with funnel having detachable sieve (made from aluminium, polyvinyl chloride and polyethylene, etc) be placed through the larger bung holes so as to reach the bottom of the drum to prevent frothing of latex inside, while filling.

4.2 The drums should be filled to the desired net weight leaving an air space of 25 to 40 mm. Then both bung holes should be tightly closed and sealed.

4.2.1 A suitable preservative should be added to the latex and well mixed before filling the drums.

NOTE — Latex remains well preserved in the presence of 0·7 percent ammonia or 0·3 percent ammonia and 0·025 percent each of zinc oxide and Tetramethyl Thiouram Disulphide on mass of latex.

5 PAINTING OUTSIDE

In the case of mild steel, drums should be painted outside for protection against weathering action.

6 PACKING CAPACITY

The material shall be packed in drums so as to contain 200 litres minimum of latex.

7 MARKING

7.1 The drum shall be marked with the following information:

a) Name of the material;

b) Indication of the source of manufacture;

c) Type of latex, that is, whether centrifuged or creamed; whether low, medium or high ammonia (*see* IS 5430 : 1981, IS 11001 : 1984 and IS 13101 : 1991);

d) Net, and gross mass in kg, and volume in litres;

e) Dry rubber content (DRC); and

f) Date of packing.