

**THE BRIHANMUMBAI ELECTRIC SUPPLY & TRANSPORT UNDERTAKING
(OF THE BRIHANMUMBAI MAHANAGARPALIKA)**

SPECIFICATION FOR CABLE WARNING COVERS

SPECIFICATION NO. - ES 520117

Relavant IS: 5820(1970)

1. **Material** : Cable warning covers shall be of burnt clay or mineral clay *Unreinforced precast concrete* .The processing shall be such as to retain the true shape and the product free from cracks. The warning covers should be such that they shall not cause any damage to cables on which they are laid and shall withstand underground temperatures without losing their properties.
2. **Dimensions** : The cable warning covers shall be rectangular in plan with the under side flat and the upper side either flat (for L.V) or peaked (for H.V. cables) as specified. *As per Table-1 of IS:5820(1970), the specified dimensions of the covers and the min. Avg. breaking load , shall be as given in Table (I) below.* Please refer drawing no. **ES/TE/A-33 Rev. `C`** for covers for **LV cables** and **ES/TE/A-34 Rev. `F`** for covers for **HV cables**.

Table-(I) : The specified dimensions of the covers and the min. Avg. breaking load

<i>Sr. No.</i>	<i>Class</i>	<i>Dimensions in mm</i>				<i>Min. Avg. Breaking load for unreinforced covers (Kg.)</i>
		<i>L</i>	<i>W</i>	<i>T</i>	<i>T'</i>	
<i>1.</i>	<i>HV</i>	<i>300</i>	<i>175</i>	<i>38</i>	<i>64</i>	<i>300</i>
<i>2.</i>	<i>LV</i>	<i>225</i>	<i>150</i>	<i>38</i>	<i>--</i>	<i>200</i>

3. **Tolerances** :*As per clause (4) of IS:5820(1970), a tolerance of –3mm (1/8") shall be allowed on the length and the width and –2mm (1/12") on the thickness.*
4. **Lettering** : The upper side of each cover shall be longitudinally impressed by letters not less than **3mm** deep, the size of the letters being as shown in the drawing. On *L.V.* covers of size **225 mm x 150 mm x 38 mm** the letter "BEST ELECTRIC" shall be impressed on one face. On *H.V.* covers of size **300 mm x 175 mm and 64 mm – 38 mm (from apex to outer edge)** the letters "BEST H.V ELECTRIC" shall be impressed. The lettering shall be symmetrically spaced.

5. TESTS :

5.1 *Manufacturer shall submit test reports of Cable Warning Cover from any recognised laboratory for first consignment of covers. The test report shall consist of transverse strength test and water absorption test. Tests will be carried out on samples chosen at random from the consignment . The cost of such test shall be borne by the manufacturer. For tests, 15 sample covers shall be selected at random from consignment of covers. The specified values of minimum average breaking load for unreinforced covers for HV application is 300 kg and for LV application is 200 kg.*

5.2 The test for transverse strength shall be carried out with the load applied at the centre of the cover at right angles to the length and midway between the supports. *As per clause 7.2 of IS:5820(1970), the average breaking load of 15 covers shall be taken. The transverse test shall be carried out as **described** in **clause 8.3 of IS:5820(1970)** .*

5.3 The average breaking load of six covers shall first be taken. Should the average breaking load of these six covers be equal to or greater than the values given in **Table-1 of IS:5820(1970)** the consignment shall be deemed to comply.

5.4 Should the average breaking load of the six covers be less than the limit specified in **Table-1 of IS:5820(1970)** the test shall be repeated on the nine covers left out from the 15 selected.

5.5 Should the average of the tests on the fifteen covers be equal to or greater than the limit specified in the table the consignment shall be deemed to comply.

5.6 Should the average of the tests on the fifteen covers be less than the limits specified in **Table-1 of IS:5820(1970)** the consignment shall be deemed not to comply.
