

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

**Specification for Rigid, Double Wall Corrugated (DWC)  
High Density Polyethylene (HDPE) Underground Conduit System**

SPECIFICATION NO.: MI- 0520109

**1.0 REQUIREMENT:**

- 1.1** The requirement is for ***Rigid DWC HDPE Buried Underground Conduit System without protection against chemical attack. The offer for Pliable conduit system will be overlooked.*** The conduit shall have following dimensions:

Sr. No.	Outside diameter with tolerance as given in the bracket	Minimum Inside Diameter	Length in Mtrs.	Colour of inner surface	Qty. in Nos
1	90mm (+1.7 mm)	67 mm	6 Mtrs.	Black	
2	200mm (+3.6 mm)	150 mm	4 Mtrs.	Yellow	
3	200mm (+3.6mm)	150 mm	6 Mtrs.	Yellow	
4	250mm (+4.5 mm)	188 mm	6 Mtrs.	Blue	

- 1.2** The tenderer shall submit sample of 1000 mm (1 Mtr.) of each offered size along with tender document. If the tenderer fails to submit sample, the offers will be overlooked.

**2.0 TECHNICAL SPECIFICATIONS :**

- 2.1** The conduit system is required for laying across roads or railway tracks with heavy traffic for taking underground power cables through it. ***The conduit system is required for buried underground system without additional precautions.***
- 2.2** The Conduit System for Electrical Installation with particular requirement of buried underground shall conform to **IS 14930 Part II or IEC 61386-Part2-4/2000.**
- 2.3 Mechanical property:** - The DWC conduit system shall have following Mechanical properties.
- 2.3.1** The conduit shall withstand compression test ***as per clause no.10.2 of IS 14930 Part II 2001 or as per clause no. 10.2 of IEC 61386 part II-4. However as BEST Undertaking special requirement, the applied compression force shall be atleast 750 N when reaching deflection of 5 %.***
- 2.3.2** **The conduit system shall withstand Impact test for "Normal" duty as per clause no.10.3 of IS 14930 or IEC 61386 Part 2-4.**
- 2.4** The Conduit Systems shall be black in colour. However colour of inner surface of the conduit for item no 2 & 3 shall be yellow and for item no 4 shall be blue.

- 2.4.1 ***The inner wall of the conduit system shall be smooth to facilitate the free and safe drawing in / replacement of power cables.***
- 2.5 **MARKING:**
- 2.5.1 ***The conduit shall be suitably marked as "N 750" and "BEST Undertaking".***
- 2.6 Conduit shall be supplied on free of cost basis with --
- (1) Suitable coupler for joining the 2 conduits. The total quantity of coupler shall be 50% of order quantity.
- (2) 2 solid End Caps with each conduit in order to protect the buried conduit from entry of water / soil / rodent etc.
- 2.7 **DOCUMENTATIONS**
- 2.7.1 The manufacturer shall submit catalogue / information for proper and safe installation and use.
- 2.7.2 The tenderer shall furnish Test certificates for mechanical properties showing Compression and Impact test from NABL accredited laboratory like CPRI, ERDA etc. along with their offer.
- 3.0 The Undertaking reserves the right to test the lots offered at our Undertaking's laboratory or at suppliers work or at any outside laboratory.