

## **TECHINICAL SPECIFICATION FOR POLYCARBONATE SEAL BITS**

### **1. SCOPE:**

This Specification covers the design, manufacture, assembly, testing at manufacturer's works, supply and delivery at destination stores of Polycarbonate seal Bits with 200mm long stainless steel wire for Red seal bits as per particulars given in the schedule of materials.

### **2. TYPE:**

Tenderers shall prepare moulds for casting all parts of seal Bits. The dies should be hand engraved in the presence of authorized representative of the EPDCL. The finished seal bits and the mould with dies will be taken delivery immediately and will be in the custody of EPDCL.

### **3. GUARANTEED TECHINICAL PARTIULARS:**

The seal bits should be made from Polycarbonate body. The body can be transparent/Transparent colours with smooth finishing.

1. The seal body head / Shape can be flat, round, square, rectangle, hexagonal octagonal, in part or full and cylindrical with provision for 7 digits laser engraving on sophisticated machinery. Serial numbers shall be same on male and female part for more safety and security. The serial number should be clearly visible with suitable font. New EPDCL logo should be embossed on the seal.
2. The bidder should have in-house laser printing facility and have to submit the relevant documents for proof as it is important from security point of view to maintain the secrecy of a product to prevent theft.
3. Confidential code encryption inside the female portion (where multi dye is used is preferable as additional security feature).

**Note: It is a confidential code encrypted while manufacturing of female portion of seal bit. The seal bit is original or duplicate can be ascertained with this code only.**

4. The seal should have tamper proof internal locked mechanism, when female portion of the bit is inserted into the male portion of the bit, it should be firmly locked and should not loose its properties and come out when excess pressure is applied and when such conditions occurs it should leave traces of tampering.
5. The Seal bits should not develop cracks or reshape or discolour due to atmospheric changes while in use.
6. The bits / male portion should not loose its properties when dipped in hot boiling water for 4 hours and delink from the female portion.
7. The male portion can have connectivity with separate twisted stainless steel wire to female portion.

8. The 1 mm or less multi strand Twisted / helical robust stainless steel wire of precut length or as desired by the utility to be supplied and connected / embedded in the male portion / or separate and must be robust and the hole used for passing sealing wire either on the body of bit or on the female portion should be and just sufficient for passing the wire at the entry and reinserting and joining with adhesive. Hole of large dia is not accepted.
9. The male portion if over lapped the female portion should not leave gap for insertion of fine tools like Blade, sharp instruments to tamper with.
10. The male portion can be inside female portion after pressing or in level of female portion and the cap or cover should be such that the gap should not permit for lifting or removing the male portion with sharp instruments.
11. Single stage or multistage locking with / without plier and robust sealing wire is preferred.
12. Any attempt of tampering should be easily evident and should leave traces for detecting.

Suppliers can also give their own design with mention of their earlier supplies to other SEBs in India.

**NOTE : Only the seal from manufacturer who has official right to manufacturer the seal shall be used. There should not be any replication (or) duplication of design of the patented seal**

#### **4. DRAWING & LEAFLETS:**

Two sets of drawings showing clearly the general arrangement and functioning should be furnished along with the tender. Technical leaflets, if any should also be furnished. Tender without details are liable for rejection.

#### **5. TEST & TEST CERTIFICATES:**

The tests shall be carried out as per relevant specification IS before despatch and the test certificates shall be furnished for approvals. A copy of type test certificates shall be enclosed along with tender. The type tests shall include boiling water test, chemical test, heat resistance test and breaking strength of sealing wire.

#### **6. SAMPLES:**

Twenty samples of Polycarbonate Seal Bits shall accompany the tender. Tenders received without samples are liable for rejection.

The purchaser will not be responsible for any damage that may be caused to the samples at any time.

#### **7. DEPART FROM SPECIFICATION:**

If tenderer wishes to depart from this specification in any respect, he shall explain fully the reasons therefore. Otherwise the requirement of this specification will be deemed to be accepted in every respect.