Doc: SIT/5382/1
Mar 2019

**केन्द्रीय मुहर विभाग-2**

हमारा संदर्भ: के मू वी-2/16: 5382 18 03 2019

**विषय: संशोधित IS 5382:2018/ISO 4633:2015 की एस आई टी (Scheme of Inspection and Testing)**

1. यह उपरोक्त विषय व 06 02 2019 को जारी किए गए कार्यान्वयन दिशा निर्देशों के संदर्भ मे है।

2. सक्षम अधिकारी द्वारा अनुमोदित संशोधित IS 5382:2018/ISO 4633:2015 की एस आई टी अनुपालन हेतु संलग्न है।

**(आदित्य दास)**
**वैज्ञानिक सी**

**प्रमुख (के मू वी-2)**

**सभी क्षेत्रीय/शाखा कार्यालय**

प्रतिलिपि :

**आई टी एस विभाग –** बी आई एस इंट्रानेट पर डालने हेतु

**CENTRAL MARKS DEPARTMENT-2**

Our Ref: CMD-2/16:5382 18 03 2019

**Subject: Scheme of Inspection and Testing (SIT) for Revised IS 5382:2018/ISO 4633:2015**

1. This has reference to the above and further to the implementation guidelines issued on 06 02 2019

2. Scheme of Inspection and Testing for Revised IS 5382:2018/ISO 4633:2015, duly approved by the CA, is enclosed for implementation.

**(Aditya Das)**
**Scientist C**

**Head (CMD-2)**

**All ROs/BOs**

**Copy to:**

**ITSD - for hosting on BIS intranet**

**SCHEME OF INSPECTION AND TESTING
FOR CERTIFICATION OF RUBBER SEALS-JOINT RINGS
FOR WATER SUPPLY, DRAINAGE AND SEWERAGE PIPELINES SPECIFICATION FOR MATERIALS
ACCORDING TO IS 5382:2018/ISO 4633:2015
(*Second Revision)***

**1.** **LABORATORY** - A laboratory shall be maintained, which shall be suitably equipped (as per the requirement given in column 2 of Table 1) and staffed, where different tests given in the specification shall be carried out in accordance with the methods given in the specification.

**1.1** The manufacturer shall prepare a calibration plan for the test equipments.

**2.** **TEST RECORDS -** The manufacturer shall maintain test records for the tests carried out to establish conformity.

**3.** **PACKING AND MARKING** -The Standard Mark as given in Schedule of the license shall be incorporated, on each sealing ring or packing or both, provided always the material thus marked conforms to all the requirement of the specification.

**3**.1 The packing and marking shall be done as per the provisions of the Indian Standard. In addition, the following shall be marked on each sealing ring or packing or both

i) BIS Licence No. CM/L-……
ii) Details of BIS website shall be marked as follows: “For details of BIS certification please visit www bis.gov.in”

**4.** **CONTROL UNIT –** For the purpose of this scheme, all finished sealing rings of the same type, dimension, design, manufactured from the same type of rubber and produced in one day shall constitute a control unit.

**4.**1 On the basis of tests and inspection results, the decision regarding conformity or otherwise of a control unit as a whole with the requirements of the standard, shall be taken as given in Table 1.

**5.** **LEVELS OF CONTROL –**The tests, as indicated in Table 1 and at the levels of control specified therein, shall be carried out on the whole production of the factory covered by this scheme and appropriate records and charts maintained in accordance with paragraph 2 above. All the production which conforms to the Indian Standard and covered by this licence shall be marked with Standard Mark.

**5.1** All production which conforms to the Indian Standard and covered in the licence should be marked with Standard mark.

**6.** **STORAGE –** Instructions for storage as given in the Indian Standard shall be complied.

**7.** **REJECTION -** Disposal of non-conforming product shall be done in such a way so as to ensure that there is no violation of provisions of BIS Act, 2016. A separate record shall be maintain in giving information relating to the rejection of the production not conforming to the requirement of the specification and the method of

its disposal. Such material shall in no case be stored together with that conforming to the specification.

**SCHEME OF INSPECTION AND TESTING**
**FOR IS 5382:2018/ISO 4633:2015**
**(Second Revision)**

**TABLE 1: LEVELS OF CONTROL**
(Para 5 of the Scheme of Inspection and Testing)

| (1) | | | | (2) | (3) | | (4) |
|---|---|---|---|---|---|---|---|
| **Test Details** | | | | **Test equipment requirement R:required (or) S: Sub-contracting permitted** | **Levels of Control** | | **Remarks** |
| **Clause** | **Requirements** | **Test Method** | | | **No. of Samples** | **Frequency** | |
| | | **Clause** | **Reference** | | | | |
| 4.1 | Requirements for materials | | | | | | |
| 4.1.1 | General | 4.1.1 | IS 5382:2018 | R | One | Each Control Unit | |
| 4.1.2 | Effect on water supply | 4.1.2 | -do- | R | One | Each Control Unit | |
| 4.1.3 | Microbiological deterioration | 4.1.3 | -do | S | As agreed between purchaser and manufacturer | | |
| 4.2 | Requirements for finished seals | | | | | | |
| 4.2.1 | Dimensional tolerances | | IS 16752:2018/ISO 3302-1 | | Five | Each Control Unit | |
| 4.2.2 | Imperfections and defects | | IS 16751:2018/ISO 9691:1992 | R | Each sealing ring | | |
| 4.2.3 | Hardness | | IS 3400 (Part 2):2014/ISO 48 | R | Three | Each Control Unit | |
| 4.2.4 | Tensile Strength | | IS 3400 (Part | R | -do | -do- | |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| | and Elongation at Break | | 1):2012/ISO 37 | | | | |
| 4.2.5 | Compression set in air | | ISO 815-1, ISO 815-2 | R | -do | -do- | |
| 4.2.6 | Accelerated ageing in air | | IS 3400 (Part 4):2012/ISO 188 | R | One | Every Tenth Control Unit | See Note 3 |
| 4.2.7 | Stretch relaxation in compression | | IS 3400 (Part 28):2018/ISO 3384-1:2011 | R | One | Each Control Unit | |
| 4.2.8 | Volume change in water | | IS 3400 (Part 6):2012/ISO 1817 | R | One | Every Tenth Control Unit | See Note 3 |
| 4.2.9 | Ozone Resistance | | IS 3400 (Part 20):1994/ISO 1431-1 | S | One | Once in three months | |
| 4.2.10 | Splices of prevulcanized profile ends | | Annex A | R | One | Every Tenth Control Unit | See Note 3 |
| 4.3 | Optional Requirements | | | | | | |
| 4.3.1 | Low temperature performance at -25 deg C | | ISO 815-2, ISO 3387 | S | As agreed between purchaser and manufacturer | | |
| 4.3.2 | Volume change in oil | | IS 3400 (Part 6):2012/ISO 1817 | S | -do- | | |

Note-1: Whether test equipment is required or sub-contracting is permitted in column 2 shall be decided by the Bureau and shall be mandatory. Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empaneled by the Bureau.

Note-2: Levels of control given in column 3 are only recommendatory in nature. The manufacturer may define the control unit/batch/lot and submit his own levels of control in column 3 with proper justification.

Note-3: In case of any failure each and every control unit shall be tested till five consecutive control units are found to be satisfactory and only then the frequency suggested in this table may be followed.