

केन्द्रीय मुहर विभाग- III

हमारा संदर्भ- सीएमडी -III/16: IS 4984

19 जुलाई 2018

विषय - आई एस 4984 : 2016 के संशोधन संख्या 1, मई 2018 के परिपालन लिए एस आई टी
Doc: SIT/4984/1, JULY 2018

इसे उपरोक्त विषय का संदर्भ है।

सक्षम प्राधिकारी ने आई एस 4984 : 2016 के संशोधन संख्या 1, मई 2018 के अनुसार उत्पाद के प्रमाणन हेतु एस.आई.टी. Doc: SIT/4984/1, JULY 2018 को अनुमोदित कर दिया है।
आई एस 4984 : 2016 के संशोधन संख्या 1, मई 2018 के प्रमाणन हेतु दिशानिर्देश अलगसे जारी किए हैं।

सभी संबंधित पक्षकारो से अनुरोध हे कि इसका अनुपालन तत्काल प्रभाव से सुनिश्चित करे।

(एस डी राणे)
वैज्ञानिक ई (सी एम डी-III)

प्रमुख (सी एम डी-III)

सभी क्षेत्रीय/शाखा कार्यालय

आई टी एस विभाग — बीआईएस इंटरनेट पर डालने हेतू

CENTRAL MARKS DEPARTMENT-III

Our Ref: CMD-III/16: IS 4984

19 July 2018

Subject: SIT Doc: SIT/4984/1, JULY 2018 for implementation of amendment
No. 1, May 2018 to IS 4984 : 2016.

This has reference to the subject mentioned above.

The Competent Authority has approved the SIT, Doc: SIT/4984/1, JULY 2018 for certification of the product as per amendment No.1, May 2018 to IS 4984:2016. Guidelines for implementation of amendment No.1, May 2018 to IS 4984:2016 circulated separately.

All concerned are requested to ensure compliance of above SIT and guidelines with immediate effect.

(S D Rane)
Sc-E (CMD- III)

Head (CMD-III)

Circulated to all RO/BO

Copy to: ITS for hosting on BIS Intranet.

**SCHEME OF INSPECTION AND TESTING
FOR CERTIFICATION OF POLYETHYLENE PIPES FOR WATER SUPPLY
ACCORDING TO IS 4984 : 2016**

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.

1.1The 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. LABELLING AND MARKING–As per the requirements of IS 4984 : 2016.

4. CONTROL UNIT – **Pipes of same designation from a continuous extrusion run of one machine manufactured from same batch of raw material upto maximum of 48 h duration** shall constitute one control unit.

5. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control submitted by the manufacturer in column 3 of Table 1, shall be carried out on the whole production of the factory which is covered by this plan and appropriate records maintained in accordance with paragraph 2 above.

5.1 All the production which conforms to the Indian Standard and covered by the licence should be marked with Standard Mark.

5.2 Storage, handling, laying and jointing of pipes shall be as per IS 7634 (Part 2):2012.

6. REJECTIONS –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.

TABLE 1

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Recommended Levels of Control		
Clause	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
5	Material	5.1, 5.2, 5.3 and 5.4	IS 4984 IS 2530 IS 7328 IS 10141 IS 10146	S	One	Each batch in a consignment	No further testing is required, if accompanied with the test certificate or ISI Marked.
6.2	Colour	6.2	IS 4984	R	All	-	-
6.2.1	Identification strip	6.2.1	IS 4984	R	10 % per control unit	Each control unit	Samples shall be selected at random to cover entire production evenly as far as possible. In case failure of sample in any requirement, double the initial sample shall selected and tested, control unit shall be rejected in case of failure of retested samples.
7	Geometric Characteristics of Pipes (Visual appearance, Length/ Coiling and Dimensions)	7.1, 7.2, 7.3 and 7.4	IS 4984	R	10 % per control unit	Each control unit	
8.1.1	Internal Pressure Creep Rupture Test of Pipe (at 80 ° C for 48 h)	8.1.1 and Annex E	IS 4984	R	One	Each control unit	-

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Recommended Levels of Control		
Clause	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
8.1.1	Internal Pressure Creep Rupture Test of Pipe (at 27 ° C for 100 h)	8.1.1 and Annex E	IS 4984	R	Three	Once in three month or whenever there is any change in resin composition or method of manufacture.	The testing schedule shall be so arranged that during period of one year, pipe of the highest size from each pressure rating/SDR and each grade manufactured during the period shall be tested. In case of failure, marking shall be stopped immediately and BIS shall be informed about failure. Corrective actions shall be taken and marking shall be resumed only after satisfactory testing of additional three samples.
8.1.1	Internal Pressure Creep Rupture Test of Pipe (at 80 ° C for 165 h)	8.1.1 and Annex E	IS 4984	R	Three	Once in three month or whenever there is any change in resin composition or method of manufacture.	The testing schedule shall be so arranged that during period of two years, pipe of the highest size of each pressure rating/SDR and each grade manufactured during the period shall be tested. In case of failure marking shall be stopped immediately and BIS shall be informed about failure. Corrective actions shall be taken and marking shall be resumed only after satisfactory testing of additional three samples.
8.1.1	Internal Pressure Creep Rupture Test of Pipe (at 80 ° C for 1000 h)	8.1.1 and Annex E	IS 4984	R	Three	Once in six month or whenever there is any change in resin composition or method of manufacture.	

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Recommended Levels of Control		
Clause	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
8.1.2	Internal Pressure Creep Rupture Test of Pipe Joints (at 80 ° C for 48 h)	8.1.2 and Annex E	IS 4984	R	Three	Once in three month or whenever there is any change in resin composition or method of manufacture.	The testing schedule shall be so arranged that during period of one year, pipe of the highest size from each pressure rating/SDR and each grade manufactured during the period shall be tested. In case of failure, marking shall be stopped immediately and BIS shall be informed about failure. Corrective actions shall be taken and marking shall be resumed only after satisfactory testing of additional three samples.
8.2	Longitudinal Reversion Test	8.2 and Annex F	IS 4984	R	One	Each control unit	-
8.3	Carbon Black Content and Dispersion		IS 2530	R	One	Each control unit	The sample shall be composite sample of minimum three pipes drawn at regular interval.
8.4	Melt Flow Rate		IS 2530	R	One	Each control unit	The sample shall be composite sample of minimum three pipes drawn at regular interval.
8.5	Oxidation Induction Time	Annex B	IS 4984	R	One	Each control unit	-

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Recommended Levels of Control		
Clause	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
8.6	Overall Migration		IS 9845 IS 10146	R	Three	Once in three month or whenever there is any change in resin composition or method of manufacture.	In case of failure of sample, additional sample of same size shall be drawn and tested. The sample shall be accepted, if no further failure is observed. In case of failure, marking shall be stopped and BIS shall be informed about the failure. Corrective actions shall be taken and marking shall be resumed only after satisfactory verification of corrective actions taken by manufacturer by testing of sample.
8.7	Density		IS 7328	R	One	Each control unit	The sample shall be composite sample of minimum three pipes drawn at regular interval.
8.8	Tensile Strength for Butt-fusion	Annex G	IS 4984	S	One	Once in a year or whenever there is any change in resin composition or method of manufacture.	In case of failure of sample, additional sample of same size shall be drawn and tested. The sample shall be accepted, if no further failure is observed. In case of failure, marking shall be stopped and BIS shall be informed about the failure. Corrective actions shall be taken and marking shall be resumed only after satisfactory verification of corrective actions taken by manufacturer by testing of sample.
8.9	Elongation at Break	Annex H	IS 4984	R	One	Each control unit	-

(1)				(2)	(3)		
Test Details				Test equipment requirement R: required (or) S: Sub-contracting permitted	Recommended Levels of Control		
Clause	Requirement	Test Methods Clause Reference			No. of Sample	Frequency	Remarks
8.10	Slow Crack Growth Rate Test	Annex J	IS 4984	S	One	Once in a year or whenever there is any change in resin composition or method of manufacture.	In case of failure of sample, additional sample of same size shall be drawn and tested. The sample shall be accepted, if no further failure is observed. In case of failure, marking shall be stopped and BIS shall be informed about the failure. Corrective actions shall be taken and marking shall be resumed only after satisfactory verification of corrective actions taken by manufacturer by testing of sample.

Note-1: Sub-contracting is permitted to a laboratory recognized by the Bureau or Government laboratories empanelled 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 for approval by B.O. Head.