



PRODUCT MANUAL FOR FERRULES FOR WATER SERVICES ACCORDING TO IS 2692 : 1989

This Product Manual shall be used as reference material by all Regional/Branch Offices & licensees to ensure coherence of practice and transparency in operation of certification under Scheme-I of Bureau of Indian Standards (Conformity Assessment) Regulations, 2018 for various products. The document may also be used by prospective applicants desirous of obtaining BIS certification licence/certificate.

1.	Product	:	IS 2692 : 1989
	Title	:	FERRULES FOR WATER SERVICES
	No. of Amendments	:	3
2.	Sampling Guidelines:		
a)	Raw material	:	As per Clause 5 and Table 1 of IS 2692: 1989
b)	Grouping guidelines	:	Please refer ANNEX – A
c)	Sample Size	:	For Physical Test – 1 Ferrule For Chemical Test – Drillings 100 gm (approx.)
3.	List of Test Equipment	:	Please refer ANNEX – B
4.	Scheme of Inspection and Testing	:	Please refer ANNEX – C
5.	Possible tests in a day:		
	i) Dimensions (Clause 6)		
	ii) Construction (Clause 8)		
	iii) Hydrostatic pressure test (Clause 10.1)		
6.	Scope of the Licence:		
	“Licence is granted to use Standard Mark as per IS 2692 : 1989 with the following scope:		
	Name of the product	Ferrules for Water Services	
	Nominal Size (mm)		

ANNEX A**Grouping Guidelines**

1. IS 2692 : 1989 covers Ferrules for Water Services with the following nominal sizes (nominal bore of the inlet connection):

Nominal sizes: 8, 10, 15, 20, 25, 32, 40 and 50 mm.

2. The most commonly used size of ‘Ferrules for Water Services’ is 15 mm. Hence, it is desirable to test the same for considering grant of licence.
3. Considering the above, the guidelines given below shall be followed for GoL/CSoL:
 - a) “Ferrules for Water Services” are categorized in two groups:

Group	Nominal size (nominal bore of the inlet connection)
Group 1	8, 10, 15 mm
Group 2	20, 25, 32, 40, 50 mm

- b) Sample of 15 mm nominal size from group 1 shall be tested for all requirements to cover all nominal sizes in the group.
 - c) Sample of any size from group 2 shall be tested for all requirements to cover all nominal sizes in the group.
4. The Firm shall declare the varieties they intend to cover in the Licence. The Scope of Licence may be restricted based on the Manufacturing and Testing capabilities of the Manufacturer.
 5. During the operation of the Licence, BO shall ensure that all the varieties covered in the Licence are tested in rotation, to the extent possible.

ANNEX B**List of Test Equipment***Major test equipment required to test as per the Indian Standard*

Sl. No.	Tests used in with Clause Reference	Test Equipment
1	Dimensions (clause 6) Construction (Clause 8)	<ul style="list-style-type: none"> - Vernier caliper - Micrometre - Ring thread gauges - Plug thread gauges - Go-NoGo plug gauges - GO-NoGo snap gauges - Templates - Depth gauges - Go-NoGo bore gauges - Radius gauges
2	Hydrostatic pressure test (Clause 10.1)	<ul style="list-style-type: none"> - Hydrostatic pressure testing equipment with end plugs, pressure gauge etc - Stop watch

The above list is indicative only and may not be treated as exhaustive.

ANNEX C

Scheme of Inspection and Testing

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. LABELLING AND MARKING – As per the requirement of IS 2692 : 1989.

4. LEVELS OF CONTROL - The tests as indicated in column 1 of Table 1 and the levels of control 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.

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

5. 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	Levels of Control			
Cl.	Requirement	Test Methods		No. of Sample	Lot Size	Remarks	
		Clause	Reference				
5	Material						
i)	Body, Plug and cap	5.1, Table 1	IS 2692	S	One	Each consignment Every tenth or fifth melt manufactured (See remarks)	@@
	Leaded tin bronze		IS 318				
	Physical Test			S	Three		
	Chemical Composition			S	Three		
ii)	Washer plate and nut	5.1, Table 1	IS 2692	S	One	Each consignment	Further testing is not required, if received with manufacturers test certificate or ISI marked. In case of cast or die cast brass, testing as per (i) above to be carried out.
	Brass (extruded, rolled, cast, diecast)		IS 319 IS 1264 IS 320				
	Leaded brass		IS 6912				
iii)	Resilient washer	5.1, Table 1	IS 2692	S	One	Each consignment	Further testing is not required, if received with manufacturers test certificate
	Leather		IS 4346				
	Vulcanized fibre		-				
	Rubber		-				
iv)	Copper washer	5.1, Table 1	IS 2692	S	One	Each consignment	Further testing is not required, if received with manufacturers test certificate
	Copper		IS 3487				

6	Dimensions	6.1, Table 2, Table 3	IS 2692	R	Each ferrule	-	Each component to be checked with templates or gauges.
7	Manufacture and workmanship	7.1, 7.2	IS 2692	R	Each ferrule	-	
8	Construction	8.1 to 8.8, Fig 2	IS 2692	R	Each ferrule	-	-
10	Testing – Hydraulic pressure test	10.1	IS 2692	R	Each ferrule	-	-

@@ Frequency of testing shall be one sample for each melt of 1000 kg or part thereof for first three melts. After that one sample shall be tested from every tenth melt, if manufactured from tested ingots/billets else one sample from every fifth melt shall be tested. On failure of any sample, every melt shall be tested till three consecutive samples pass.

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 BO Head.