

केन्द्रीय मुहर विभाग -2

संदर्भ -: केमूवी-2/16:7494

08 11 2023

विषय: संशोधित **IS 7494:2023** के अनुपालन के दिशा निर्देश

यह उपरोक्त विषय के संदर्भ में है।

सक्षम अधिकारी द्वारा अनुमोदित दिशानिर्देश अनुपालन हेतु संलग्न है।

सभी क्षेत्रीय/शाखा कार्यालयों से अनुरोध है की दिशानिर्देशों का तत्काल प्रभाव से अनुपालन सुनिश्चित करें।

**शिवम आहूजा**  
**वैज्ञानिक सी**

प्रमुख (केमूवी 2)

सभी क्षेत्रीय/शाखा कार्यालय/प्रयोगशालाएँ/**MTD/LPPD**

**CENTRAL MARKS DEPARTMENT-2**

Our Ref: CMD-2/16:7494

08 11 2023

**Subject: Guidelines for implementation of Revised IS 7494:2023**

This has reference to the subject mentioned above.

The Competent Authority has approved the enclosed Guidelines for implementation.

All ROs/BOs are requested to ensure the implementation of the above Guidelines with immediate effect.

**(Shivam Ahuja)**  
**Scientist C**

**Head (CMD-2)**

**All ROs/BOs/Labs/MTD/LPPD**

## CENTRAL MARKS DEPARTMENT-2

Our Ref: CMD-2/16: 7494

08 11 2023

**Subject: Guidelines for implementation of Revised IS 7494:2023 (Alloys for Internal Combustion Engine Valve Applications-Specification)**

1. This has reference to the above.
2. IS 7494:1981 is under compulsory BIS Certification with 02 licences operative domestically.
3. IS 7494:1981 has been revised as IS 7494:2023 and the date of withdrawal of IS 7494:1981 is **28<sup>th</sup> March 2024**.
4. All BOs and FMCD shall inform the Applicants and Licensees under their jurisdiction about implementation of the revised Standard within a week of issuance of these guidelines.
5. The significant changes in the revised Standard as listed in the Table are given for the purpose of general guidance. BOs shall ensure that the product conforms to all the requirements, as applicable, as per the revised Standard.

<b>Clause(s) as per IS 7494:2023</b>	<b>Specified Requirement</b>
1 Scope	The scope has been modified to include wire rods , up to 40 mm size, as well, apart from bars
3 Terms and Definitions	A new clause has been added specifying definition of Valve Alloys
4.2 Supply Conditions (erstwhile cl.3.2 of IS 7494:1981)	The clause has been modified to state that that the bars can be supplied without heat treatment or with heat treatment in the annealed/solution treated/quenched and tempered conditions
4.3 Supply Conditions	A new clause has been added specifying the surface finished in which the material in the form of bar/wire rod can be supplied
5 Classification	A new clause has been added specifying classification of valve alloys as per their chemical composition  A comparable list of various designation systems in other national/international/association standards has been added as Annex B
7, Table 1 Chemical Composition	Grades V-1, V-2, V-3, V-4, V-5,V-6,V-7,V-9,V-11, V-13 have been deleted Grades V-8, V-10, V-12, V-14 and V-15 have been re-designated. In addition, requirements for these grades have been aligned with those prevailing across the automobile industry  15 new grades of majorly used valve alloys and comprising of stainless steels,

	super alloys and titanium alloys have been added
7.2 Product Analysis (erstwhile cl.6.2 of IS 7494:1981)	Reference to IS/ISO 14824 has been added for carrying out Product Analysis on the finished product
8 Freedom from Defects (erstwhile cl.5. of IS 7494:1981)	Requirement of depth of surface defects for peeled or ground bars has been added
9, Table 3 Mechanical Properties	Mechanical properties at room temperature for material supplied in heat-treated condition have been added in Table 3 Reference data for Hot Forming and Heat Treatment has been specified under Table 4 Reference values for mechanical properties at room temperature have been specified under Table 5, reference values for tensile properties at elevated temperature have been specified under Table 6 and reference values for creep strength after 1 000 h have been specified under Table 7
10 Grain Size	Requirement of Grain Size has been added
11 Non Metallic Inclusions	Requirements of Non-Metallic Inclusions have been modified
12 Physical Properties	Reference data on physical properties of valve alloys has been added under Table 8
13 Dimensions and Tolerances	Requirements of Tolerances for Drawn and Centre Less Ground Bars and Wire Rods have been added
16 Packing and Marking	Marking Requirements have been modified

6. The existing Product Manual has also been revised on account of the revision and the same is being circulated separately.

7. The guidelines for implementation of the revised Standard is given below:

#### A. LICENSEES:

i) All Licensees shall implement the revised standard by **28<sup>th</sup> March 2024**. Any difficulty in implementation shall be brought to the notice of CMD 2 at the earliest but in any case at least 30 days before the last date of implementation. BOs shall ensure that no Licences are under operation as per the old version i.e IS 7494:2023 after **28<sup>th</sup> March 2024**. **The status of implementation of the revised standard shall be confirmed by Head (BO) to CMD-2 within two weeks of the last date of concurrent running.**

ii) For switchover to revised standard, existing licensees shall submit the following:

**a) Declaration with regards to the scope of licence as per revised IS i.e. IS 7494:2023 indicating Designations, Conditions of Supply, Heat Treatment Condition, Shape and Size and Optional Requirements(if any) (refer Sl.No.6 Scope of Licence of the Product Manual of IS 7494:2023), equivalent to those already covered under existing scope of licence.**

**b) In-house/Independent Test Reports of the Designations ,equivalent to those already covered under existing scope of licence , as per Grouping Guidelines specified at Annex A to the Product Manual of IS 7494:2023.**

iii) BOs shall issue Endorsement for the switchover to revised standard along with the revised scope of licence as per IS 7494:2023.

iv) For inclusion of new varieties (Designations, Conditions of Supply, Heat Treatment Condition, Shape and Size and Optional Requirements(if any) (refer Sl.No.6 Scope of Licence of the Product Manual of IS 7494:2023), covered under the revised standard, the latest Guidelines for Change in Scope of Licence (CSoL) shall be followed.

v) Verification for implementation of the revised standard ,wherever required, may be carried out during the next surveillance visit. BOs shall plan an early surveillance visit for verification of the implementation of the revised standard preferably within 30 days of switchover by the licensee,

## **B. APPLICATIONS FOR GRANT OF LICENCE:**

1. Existing Applications where Sample has been submitted in the Laboratory/Test Report has been issued by the Laboratory may be processed as per the old Standard.However, if the Applicant is desirous of considering the Application as per the revised Standard, a declaration may be obtained from the Applicant to that effect and the Application may be processed accordingly. An undertaking shall from such Applicants also be obtained that in new test requirements, Licence will not be granted by BIS as per the old version.

2. Applications which are recorded henceforth may be processed as per the old Standard or the revised Standard. Processing of Applications as per the old Standard shall be permitted only upto **27<sup>th</sup> March 2024** and for such cases Applicant shall give a declaration that they will implement the revised Standard by **28<sup>th</sup> March 2024**.

3. Beyond **28<sup>th</sup> March 2024** no Licence shall be granted as per the old Standard.

## **C. CHANGE IN SCOPE OF LICENCE:**

1. For change in scope of licence, the relevant provisions as given above for Applicants shall apply.

2. However, processing of such applications for change in scope of licence as per the old Standard shall be permitted only up to the date of implementation of the revised Standard or up to **28<sup>th</sup> March 2024** whichever is earlier.

3. The above guidelines come into force with immediate effect.

**Head (CMD-2)**  
**DDG (Certification)**  
**ROs/BOs**