



भारतीय मानक ब्यूरो

(उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, भारत सरकार)

**BUREAU OF INDIAN STANDARDS**

(Ministry of Consumer Affairs, Food & Public Distribution, Govt. of India)

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## Review Document

### Basic Details

1.	Sectional Committee No. & Title:	MTD 9 - Ores and Feed Stock for Non-Ferrous (Excluding Aluminium and Copper) Industry, their Metals/ Alloys and Products Sectional Committee
2.	IS No :	IS 13351 : 1992
3.	Title :	Thoriated tungsten wires and rods - Specification
4.	Date of Previous Review:	March, 2021

### Review Analysis

#### 5.1 Status of standard(s), if any from which assistance had been drawn in the formulation of this IS.

S.No.	Standard (No.)	Standard (Title)	Whether the standard has since been revised	Major changes	Action proposed
1	ASTM F288-1981	Standard specification for Tungsten Wire for electron devices and lamps	yes, ASTM F 288-1986	The chemical composition of grade 2A and 2B in ASTM has been modified. Earlier in ASTM thoria content in grade 2A was specified as 0.75 to 1.1 and in the new version it has been mentioned as 0.8 to 1.2. similarly for Grade 2A which in its earlier version of ASTM was specified as 1.75 to 2.1, the new versions specifies the same as 1.7 to 2.2 percent.	It is being proposed based on comparative study to modify the thoria content in IS 13351 in line with ASTM as 1.7 to 2.2 percent. Also it is being proposed to add the Grade 2A of Astm having thoria content between 0.8 to 1.2 percent. Further the Notes mentioned in chemical requirements mentions other elements have to be 500 ppm Max and Other elements (each) 100ppm Max have to added as note to table 1 in IS 13351. (Please See Draft standardalso)

**5.2 Status of standard referred in the IS.**

S.No.	Referred standards (No.)	Referred standards (Title)	Since revised IS no. of the corresponding IS	Changes in the referred Standards since last review of IS	Changes in the referred standard which are affecting the standard under review	Action proposed
1	IS 1387 : 1967	General requirements for the supply of metallurgical materials ( First revision )	IS 1387 : 1993 General requirements for the supply of metallurgical materials (Second Revision)	Since the publication of this standard, it has been a general practice to make reference to this standard in the material specifications where the provision of this standard would be applicable. This practice has considerably simplified the presentation of specifications for metals and metal products. It has also been possible for individual purchasers and inspecting authorities to establish such provisions as may suit their special needs and to use them instead of, or as supplement to, this standard. It was felt that the original title of the specification made reference only to metals and metal products and as such doubts were expressed while making reference to this standard in specifications relating to raw materials, such as refractory materials, ferro-alloys, metallurgical coke and foundry raw materials. Therefore, it was decided to change the title and scope of this standard to cover metallurgical materials including raw materials and finished products.	No change. Since in the earlier version of IS 1387 i.e IS 1387:1967 in which the standard made reference to metals and metal products . As IS 13351 thoriated tungsten is a metal product and it would not affect the standard by the revision of IS 1387 : 1967 in which the title was modified to cover all metallurgical products including raw materials, refractories etc.	It is proposed to refer to the newer version of IS 1387 i.e IS 1387 :1991 as the newer version has much clarity and better contents

**5.3 Any other standards available related to the subject & scope of the standard being reviewed (International/regional/other national/association/consortia, etc or of new or revision of existing Indian Standard).**

S.No.	Standard (No.)	Standard (Title)	Provisions that could be relevant while reviewing the IS	Action proposed
No entry made in this table				

**5.4 Technical comments on the standard received, if any.**

S.No.	Source	Clause of IS	Comment	Action proposed
No entry made in this table				

**5.5 Information available on relevant technical developments**

S.No.	Source	Development	Relevant clause of the IS under review that is likely to be impacted (Clause & IS No.)	Action proposed
1	General	As per the online suppliers available and the products being supplied not much change has been there . However it was observed one more grade of astm f 288 Grade 2A containing 1 percent thoria is also being supplied	Clause 5, chemical composition	Proposed to add one more grade containing 1 percent thoria as per ASTM F 288-1986.

**5.6 Issues arising out of changes in any related IS or due to formulation of new Indian Standard.**

S.No.	Related IS (revised or new)	Related IS Title	Provision in the IS under review that would be impacted & the clause no. or addition of new clause/provision	Changes that may be necessary in the Standards under review	Action proposed
No entry made in this table					

**5.7 Any consequential changes to be considered in other IS.**

S.No.	Related IS to get impacted	Related IS Title	Requirements to be impacted
No entry made in this table			

**Other Details**

6.	Any other observation:	The referee method for determining out of roundness in clause 9.2 has been deleted as the method mentioned in the standard is not complete and required the description of equipment also. Since the method of test is as agreed between manufacturer and purchaser , the referee method should also be same.
7.	Upload Supporting Document(s)	
<b>7.1 ARP Report</b>		<a href="#">70_4886_220927031222_ARP_Report.docx</a>
<b>7.2 Draft Document</b>		<a href="#">70_4886_220927030024_Draft_Document.docx</a>
8.	Recommendations - On the basis of the analysis of the info available as mentioned above consideration of sectional committee is solicited on the following aspects of the IS under review:	<div style="border: 1px solid black; padding: 5px;">                     Based on above review it is being proposed to revise the standard by including the changes proposed. the main changes being addition of 1 percent thoria grade as per ASTM F 288 , modification of chemical composition of thoria in existing grade and deletion of referee method for measuring out of roundness. Further the clause 5.2.1 for determination of purity and thoria content has been modified                 </div>