

केन्द्रीय मुहर विभाग -2

संदर्भ :- के.मू.वि. -2/16:1921

09-10-2025

विषय: संशोधित IS 1921:2025 के अनुपालन हेतु 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।

**रंजीत कुमार
वैज्ञानिक 'ई'**

प्रमुख (के.मू.वि. - 2)

सभी क्षेत्रीय/शाखा कार्यालय/प्रयोगशालाएँ/MTD/LRMD

CENTRAL MARKS DEPARTMENT-2

Our Ref: CMD-2/16:1921

09-10-2025

Subject: Guidelines for implementation of Revised IS 1921:2025.

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.

**(Ranjit Kumar)
Scientist 'E'**

Head (CMD-2)

All ROs/BOs/Labs/MTD/LRMD

CENTRAL MARKS DEPARTMENT-2

Our Ref:CMD-2/16:1921

Date: 09-10-2025

Subject: Guidelines for implementation of Revised IS 1921:2025 (Solder Wire - Solid and Flux Cored)

1. IS 1921:2005 has been revised and published as IS 1921:2025. The last date for implementation of the revised Standard is 30th October 2025 after which the old Standard shall stand withdrawn.
2. All BOs shall inform the Applicants and Licensees under their jurisdiction about implementation of the revised Standard within a week of issuance of these guidelines.
3. The significant changes in the revised Standard as listed in the Table below 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.

Clause (s) as per IS 1921:2025	Change
Title	Title of the standard has been modified from ‘Flux cored solder wire — Specification’ to ‘Solder wire —Solid and flux cored— Specification’
1 Scope	<p>The scope has been enlarged to include requirements for both solid and flux-cored solder wires, classification of fluxes in cored wire based on their constituents, performance requirements, and test methods in line with international practices.</p> <p>The earlier version of the standard covered only rosin based fluxes, whereas this revision includes fluxes based on four compositions: Rosin (RO) (colophony or modified colophony), resin (RE), organic (OR), and inorganic (IN), aligning with internationally accepted standards.</p>
3 Terms and Definitions	A new clause 3 specifying terms and definition has been incorporated.

4.2 Information to be Given by the Purchaser	A new clause 4.2 has been added specifying information to be given by the purchaser while placing an order/enquiry for the purchase of material covered by this specification.
5 Raw Materials for Manufacture of Solder Alloys	A new clause specifying Raw Materials for Manufacture of Solder Alloys has been added. This clause is for the guidance purposes only.
6 Solder Alloy	A new clause 6 specifying solder alloy designation. Solder alloy used for solid wire and for the solder component of flux cored solder wire, shall be designated in accordance with system of solder alloy designations given in IS 193.
6.2 Chemical Composition of Solder Alloy	The clause on chemical composition has been updated to include both lead-containing and lead-free grades as specified in IS 193, compared to the previous version, which listed only five grades based on Pb-Sb alloys. The standard now covers approximately 30 lead-containing alloys grouped into 10 categories based on their main alloying elements and 31 grades of lead-free solder grouped into 21 categories. Additionally, the current revision allows for the use of other alloys, provided they meet the impurity limits specified in Clause 6.2.2;
7 Flux	A new clause on Solder Core Construction Requirements under General Characteristics of Flux of Flux Cored Solder Wire has been incorporated.
7.2 Flux Classification and Characterization	Annex-E on flux classification and characterization has been included in the standard which gives the detailed classification of the fluxes used in the manufacture of solder wire and, the classification parameters and requirements for classifying the fluxes;
7.3 Flux Percentage or Flux Content	The earlier version of the standard restricted the flux percentages from 2 percent to 4 percent, which now has been relaxed and kept as agreed between purchaser and the supplier. However, the now standard specifies tolerance limits on the declared flux percentages;

7.6 Spread Test (Optional)	The revised standard has also prescribed certain optional tests, which include spread test, electrochemical migration resistance (ECM) test and halogen content test.
7.7 Halogen Content Test (Optional)	
Table 7 Electrochemical Migration (ECM)- Optional test	
9 Sampling for Tests	Clause on sampling has been modified
12 Marking	<p>The marking clause has been updated incorporating additional following minimum information:</p> <ul style="list-style-type: none"> • Flux Percentage (applicable to flux cored solder wire) • Shelf life/Expiry (applicable to flux cored solder wire); • If any, applicable health and safety markings, including indicative lead free or lead containing marking, as given in relevant acts, rules, regulations or bye-laws existing in the Union of India; and • Any other markings or labelling as agreed between the purchaser and supplier.
Annexure-A	Annex-A has been incorporated in the standard, which specifies two methods for the extraction of flux incorporated in flux cored solder wire;
Annexure-G	Annex-G has been included in the standard which specifies the procedure for determination of flux content in the flux cored solder wire;
New Annexures	Various annexures have been added for test methods such as Annex J for spread test of cored wire, Annex H for flux residue dryness test, Annex F for measurement of nominal diameter, Annex M for copper mirror test for assessing corrosion of flux, Annex N for copper plate corrosion test for assessing corrosion of flux residues, Annex L for

	determination of non-volatile content of extracted flux, Annex K for quantitative determination of halide content, Annex P for qualitative determination of halide content, Annex Q and Annex R for surface insulation resistance test and electrochemical migration resistance test out of which Annex R is the referee method and Annex D has been included for acid value determination; and
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4. Consequent upon the issuance of the revised Standard, the existing product manual of IS 1921 has been revised which is being circulated separately.

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

A. LICENSEES:

i) For switchover to revised standard, Licensees shall submit evidence of conformity to the additional/modified requirements through In-house/Independent Test Reports.

ii) Licensee shall submit declaration for additional Testing equipment in Form no II as applicable

iii) All Licensees shall implement the revised Standard by **30th October 2025**. Any difficulty in implementation shall be brought to the notice of CMD-2 immediately after issuance of these guidelines, and in any case, not later than seven days prior to the implementation date. BOs shall ensure that no Licences are under operation as per old Standard after 30th October 2025. The status of implementation of the revised Standard shall be confirmed by Head (BO) to CMD-2 within one week of the last date of concurrent running.

iv) Scope of the Licence shall be aligned as per the revised PM.

v) 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:

i) 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 also be obtained from such Applicants that if the sample fails in new test requirements, Licence will not be granted by BIS as per the old version.

ii) 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

up to 29th October 2025 and for such cases Applicant shall give a declaration that they will implement the revised Standard by 30th October 2025.

iii). Beyond 30th October 2025 no Licence shall be granted as per the old Standard.

C. CHANGE IN SCOPE OF LICENCE:

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

ii) 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 30th October 2025 whichever is earlier.

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

Ranjit Kumar
Scientist-E

Head (CMD-2)

DDG (Certification)

ROs/BOs