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| ***भारतीय मानक***  ***Indian Standard*** | **IS XXXX : 2024**  **ISO 22605 : 2020** |

**रीफ्रैक्टरीज — इम्पल्स एक्ससिटेशन ऑफ़ वाइब्रेशन के द्वारा उत्थित ताप में डायनामिक यंग'स मॉडुलुस**

**(म ओ इ) निर्धारित करना**

**Refractories — Determination of dynamic Young’s modulus (MOE) at elevated temperatures by impulse excitation of vibration**

ICS 81.080

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भारतीय मानक ब्यूरो

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Refractories Sectional Committee, MTD 15

NATIONAL FOREWORD

This Indian Standard which is identical to ISO 22605:2020 “Refractories — Determination of dynamic Young’s modulus (MOE) at elevated temperatures by impulse excitation of vibration” issued by the International Organization for Standardization (ISO), was adopted by the Bureau of Indian Standards on the recommendation of the Refractories Sectional Committee and approval of the Metallurgical Engineering Division Council.

The text of ISO standard has been approved as suitable for publication as in Indian Standard without deviations. Certain terminologies and conventions are, however, not identical with those used in Indian Standard. Attention is especially drawn to the following:

1. Wherever the words `International Standard’ appear referring to this standard, it should be read as `Indian Standard’.
2. Comma (,) has been used as a decimal marker while in Indian Standards the current practice is to use a point (.) as the decimal marker.

In this adopted standard, reference appears to certain International Standards for which Indian Standards also exists. The corresponding Indian Standards which are to be substituted in their place are listed below along with their degree of equivalence for the edition indicated:

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| *International Standard* | *Corresponding Indian Standard* | *Degree of Equivalence* |
| ISO 5022 Shaped refractory products — Sampling and acceptance testing. | IS 1528 (Part 7) : 2010 Methods of sampling and physical tests for refractory materials: Part 7 methods of sampling and criteria for conformity (*Second Revision*). | Not Equivalent |
| ISO 8656-1 Refractory products — Sampling of raw materials and unshaped products — Part 1: Sampling scheme. | IS 1528 (Part 7) : 2010 Methods of sampling and physical tests for refractory materials: Part 7 methods of sampling and criteria for conformity (*Second Revision*). | Not Equivalent |
| ISO 12680-1 Methods of test for refractory products — Part 1: Determination of dynamic Young's modulus (MOE) by impulse excitation of vibration | MTD 15 (23810) Methods of test for refractory products: Part 1 Determination of dynamic Young's modulus (MOE) by impulse excitation of vibration. | Identical |
| ISO 16835 Refractory products — Determination of thermal expansion | IS 1528 (Part 19) : 2020 / ISO 16835 : 2014 Methods of Sampling and Physical Tests for Refractory Materials: Part 19 Determination of Thermal Expansion ( *First Revision* ) | Identical |
| IEC 60584-1 Thermocouples — Part 1: EMF specifications and tolerances | IS 16923 (Part 1) : 2018 / IEC 60584-1 : 2013 Thermocouples Part 1 EMF Specifications and Tolerances (*First Revision*) | Identical |
| IEC 60584-2 Thermocouples**1)** — Part 2: Tolerances | IS 16923 (Part 1) : 2018 / IEC 60584-1 : 2013 Thermocouples Part 1 EMF Specifications and Tolerances (*First Revision*) | Identical |

1. The International Standard IEC 60584-2 : 1982 “Thermocouples — Part 2: Tolerances” has been replaced by IEC 60584-1: 2013 “Thermocouples — Part 1: EMF specifications and tolerances” which is adopted as a Indian Standard IS 16923 (Part 1) : 2018 “Thermocouples Part 1 EMF Specifications and Tolerances (*First Revision*)” under dual numbering system.

In reporting the result of a test or analysis made in accordance with this standard, is to be rounded off, it shall be done in accordance with IS 2: 2022 ‘Rules for rounding off numerical- values (*second revision*)’. The number of significant places retained in the rounded off value should be the same as that of the specified value in this standard.