

*Indian Standard*  
**IMPLANTS FOR SURGERY — METALLIC MATERIALS**  
**PART 9 WROUGHT HIGH NITROGEN STAINLESS STEEL**

## **1 Scope**

This part of ISO 5832 specifies the characteristics of, and corresponding test methods for, wrought stainless steel containing a mass fraction of 0,25 % to 0,50 % nitrogen for use in the manufacture of surgical implants for which high levels of strength and corrosion resistance are required.

NOTE 1 The mechanical properties of a sample obtained from a finished product made of this alloy can differ from those specified in this part of ISO 5832.

NOTE 2 Requirements for other stainless steels for implants for surgery can be found in ISO 5832-1.

## **2 Normative references**

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 377, *Steel and steel products — Location and preparation of samples and test pieces for mechanical testing*

ISO 404:1992, *Steel and steel products — General technical delivery requirements*

ISO 437, *Steel and cast iron — Determination of total carbon content — Combustion gravimetric method*

ISO 439, *Steel and iron — Determination of total silicon content — Gravimetric method*

ISO 629, *Steel and cast iron — Determination of manganese content — Spectrophotometric method*

ISO 643, *Steels — Micrographic determination of the apparent grain size*

ISO 671, *Steel and cast iron — Determination of sulphur content — Combustion titrimetric method*

ISO 3651-2, *Determination of resistance to intergranular corrosion of stainless steels — Part 2: Ferritic, austenitic and ferritic-austenitic (duplex) stainless steels — Corrosion test in media containing sulfuric acid*

ISO 4967:1998, *Steel — Determination of content of nonmetallic inclusions — Micrographic method using standard diagrams*

ISO 6892, *Metallic materials — Tensile testing at ambient temperature*

ISO 10714, *Steel and iron — Determination of phosphorus content — Phosphovanadomolybdate spectrophotometric method*