

BUREAU OF INDIAN STANDARDS
DRAFT FOR COMMENTS ONLY

Not to be reproduced without permission of BIS or use as Standard

Doc No.: PGD 37 (22056)
IS 7178 : 2023
ISO 2702 : 2022

भारतीय मानक मसौदा

**फास्टनर्स – उष्मा उपचारित टैपिंग पेंच – यांत्रिक और भौतिक गुणधर्म
(पाँचवा पुनरीक्षण)**

Draft Indian Standard

**Fasteners — Heat Treated Tapping Screws — Mechanical
and Physical Properties**

(Fifth Revision)

ICS : 21.060.10

Not to be reproduced without permission of BIS or use as Standard	Last date for receipt of comment is 27 November 2023
--	---

General Engineering and Fasteners Standards Sectional Committee, PGD 37

NATIONAL FOREWORD

This Indian Standard (Fifth Revision) which is identical with ISO 2702 : 2022 ‘Fasteners — Heat treated tapping screws — Mechanical and physical properties’ issued by the International Organization for Standardization (ISO) will be adopted by the Bureau of Indian Standards on the recommendation of the General Engineering and Fasteners Standards Sectional Committee and approval of the Production and General Engineering Division Council.

This standard was originally published in 1974 and subsequently revised in 1982, 1990, 2002 and 2018. The fifth revision of this standard has been undertaken to align it with the latest version of ISO 2702.

The major changes in this revision are as follows:

- a) The standard has been structured with regard to requirements and test methods;
- b) New Table 1 for mechanical and physical properties and related test methods has been added (*see 5.1*);
- c) Maximum case-hardened depth has been increased to 0.12 mm for ST2.2 and ST2.6 (*see 5.3*);

- d) Maximum core hardness has been changed from 370 HV back to 390 HV and core hardness test has been specified more precisely (*see 5.4 and 6.4*);
- e) New clauses for ductility and ductility test have been added (*see 5.8 and 6.8*);
- f) Test method for case-hardened depth determination has been modified (*see 6.3*);
- g) Torsional test has been specified more precisely (*see 6.7*);
- h) Clause on inspection has been added; and
- j) Clause for marking and labelling has been added.

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

- a) Wherever the words ‘International Standard’ appear referring to this standard, they should be read as ‘Indian Standard’.
- b) 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 exist. The corresponding Indian Standards, which are to be substituted in their respective places, are listed below along with their degree of equivalence for the editions indicated:

<i>International Standard</i>	<i>Corresponding Indian Standard</i>	<i>Degree of Equivalence</i>
ISO 1891-4 Fasteners — Vocabulary — Part 4: Control, inspection, delivery, acceptance and quality	Doc No.: PGD 37 (22772) Fasteners — Vocabulary: Part 4: Control, inspection, delivery, acceptance and quality	Identical with ISO 1891-4 : 2018
ISO 6507-1 Metallic materials — Vickers hardness test — Part 1: Test method	IS 1501 (Part 1) : 2020 Metallic materials — Vickers hardness test: Part 1 Test method (<i>fifth revision</i>)	Identical with ISO 6507-1 : 2018
ISO 1478 Tapping screws thread	IS 5957 : 2003 Screw threads for thread forming tapping screws dimensions (<i>second revision</i>)	Identical with ISO 1478 : 1999

The technical committee has reviewed the provisions of the following International Standard referred in this adopted standard and has decided that it is acceptable for use in conjunction with this standard:

<i>International Standard</i>	<i>Title</i>
ISO 16228	Fasteners — Types of inspection documents

NOTE: The technical content of draft standard is not available on website. For details please refer to ISO 2702 : 2022 or contact:

Head

Production and General Engineering Department

Bureau of Indian Standards

9 Bahadur Shah Zafar Marg

New Delhi-110002

Email: pgd@bis.gov.in

Telefax: 011-23234819