

Inserts, thin wall, self-locking, MJ threads, in heat resisting nickel base alloy NI-P100HT (Inconel 718) — Technical specification

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British Standard

ICS 49.030.30

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Summary of pages

This document comprises a front cover, an inside front cover, pages i and ii, the EN title page, pages 2 to 17 and a back cover.
This standard has been updated (see copyright date) and may have had amendments incorporated. This will be indicated in the amendment table on the inside front cover.

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Contents

	Page
National foreword	Inside front cover
Foreword	2
Text of EN 3297	3

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English version

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Série aérospatiale — Douilles filetées, à paroi mince, à freinage interne, à filetage MJ, en alliage résistant à chaud à base de nickel NI-P100HT (Inconel 718) — Spécification technique

Luft- und Raumfahrt — Gewindeeinsätze, dünnwandig, selbstsichernd, MJ-Gewinde, aus hochwarmfester Nickelbasislegierung NI-P100HT (Inconel 718) — Technische Lieferbedingungen

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Foreword

This European Standard has been prepared by the European Association of Aerospace Manufacturers (AECMA).

After inquiries and votes carried out in accordance with the rules of this Association, this Standard has successively received the approval of the National Associations and the Official Services of the member countries of AECMA, prior to its presentation to CEN.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by July 1998, and conflicting national standards shall be withdrawn at the latest by July 1998.

According to the CEN/CENELEC Internal Regulations, the national standards organizations of the following countries are bound to implement this European Standard: Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom.

Contents

	Page
Foreword	2
1 Scope	3
2 Normative references	3
3 Definitions	3
4 Quality assurance	4
5 Requirements	5
Annex A (normative) Definition of test block	15
Annex B (normative) Assembly for rotational resistance test	16
Annex C (normative) Assembly for reusability test	17
Figure A.1	15
Figure B.1	16
Figure C.1	17
Table 1 — Technical requirements and test methods	6
Table 2 — Allocation of qualification testing requirements	11
Table 3 — Classification of defects	13
Table 4 — Sampling plans for visual inspections and dimensional characteristics	13
Table 5 — Rotational resistance test values	13
Table 6 — Values of breakaway torque, self-locking torque and seating torque	14
Table 7 — Sampling plans for the inspection of mechanical and metallurgical characteristics	14
Table 8 — Permissible surface discontinuities	14

1 Scope

This standard specifies the characteristics, qualification and acceptance requirements for self-locking thin wall inserts with MJ threads in NI-P100HT.

It is applicable whenever referenced.

2 Normative references

This European Standard incorporates by dated or undated reference provisions from other publications. These normative references are cited at the appropriate places in the text and the publications are listed hereafter. For dated references, subsequent amendments to or revisions of any of these publications apply to this European Standard only when incorporated in it by amendment or revision. For undated references the latest edition of the publication referred to applies. ISO 2859-1, *Sampling procedures for inspection by attributes — Part 1: Sampling plans indexed by acceptable quality level (AQL) for lot-by-lot inspection*.

ISO 3452, *Non-destructive testing — Penetrant inspection — General principles*.

ISO 3534-1977, *Statistics — Vocabulary and symbols*.

ISO 4288, *Rules and procedures for the measurement of surface roughness using stylus instruments*.

ISO 5855-2, *Aerospace — MJ threads — Part 2: Limit dimensions for bolts and nuts*.

ISO 8642, *Aerospace — Self-locking nuts with maximum operating temperature greater than 425 °C — Test methods*.

EN 2404, *Heat resisting nickel base alloy NI-P100HT — Solution treated and precipitation treated — Bars — Aerospace series*¹⁾.

EN 3042, *Aerospace series — Quality assurance — EN aerospace products — Qualification procedure*.

EN 3298, *Aerospace series — Inserts, thin wall, self-locking — Installation and removal procedure*²⁾.

EN 3676, *Aerospace series — Inserts, thin wall, self-locking — Design standard*²⁾.

ASTM E 112-88, *Standard Test Methods for Determining Average Grain Size*³⁾.

3 Definitions

For the purposes of this standard, the following definitions apply:

3.1

batch

quantity of finished thin wall inserts, of the same type and same diameter, produced from a material obtained from the same melt, manufactured in the course of the same production cycle, following the same manufacturing route and having undergone all the relevant heat treatments and surface treatments

3.2 Surface discontinuities

3.2.1

crack

rupture in the material which may extend in any direction and which may be intercrystalline or transcrystalline in character

3.2.2

seam

open surface defect

3.2.3

lap

surface defect caused by folding over metal fins or sharp corners and then compressing them into the surface

3.2.4

inclusions

non-metallic particles originating from the material manufacturing process. These particles may be isolated or arranged in strings

3.3

test temperature

ambient temperature, unless otherwise specified

3.4

simple random sampling

the taking of n items from a population of N items in such a way that all possible combinations of n items have the same probability of being chosen⁴⁾

¹⁾ Published as AECMA Standard at the date of publication of this standard

²⁾ Published as AECMA Prestandard at the date of publication of this standard

³⁾ Published by: American Society for Testing and Materials (ASTM), 1916, Race street, Philadelphia, PA 19103, USA

⁴⁾ Definition taken from ISO 3534