BS 2HR 3:2010

BSI Standards Publication

AEROSPACE SERIES

Specification for nickel-cobalt-chromium-molybdenum-aluminium-titanium heat-resisting alloy billets, bars, forgings and parts (Nickel base, Co 20, Cr 14.8, Mo 5, Al 4.8, Ti 1.2)

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Contents

Foreword *ii*
1 Scope *1*
2 Normative references *1*
3 Technical requirements *1*

Bibliography *10*

List of tables
Table 1 – Technical requirements for nickel-cobalt-chromium-molybdenum-aluminium-titanium heat-resisting alloy bars and extruded sections for machining *2*
Table 2 – Technical requirements for nickel-cobalt-chromium-molybdenum-aluminium-titanium heat-resisting alloy extruded sections for subsequent forming *4*
Table 3 – Technical requirements for nickel-cobalt-chromium-molybdenum-aluminium-titanium heat-resisting alloy billets and bars for forging *6*
Table 4 – Technical requirements for nickel-cobalt-chromium-molybdenum-aluminium-titanium heat-resisting alloy forgings *8*

Summary of pages
This document comprises a front cover, an inside front cover, pages i to ii, pages 1 to 10, an inside back cover and a back cover.

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Foreword

Publishing information

This British Standard is published by BSI and came into effect on 31 January 2010. It was prepared by Panel ACE/61/-/48, *Heat resisting alloys*, under the authority of Technical Committee ACE/61, *Metallic materials for aerospace purposes*. A list of organizations represented on this committee can be obtained on request to its secretary.

Supersession

This standard supersedes BS HR 3:1972, which is withdrawn.

Information about this document

This is a full revision of BS HR 3. The principal change from the previous edition is that the requirements are stated in tabular format in accordance with EN 4500-1 and EN 4500-3.

Hazard warnings

WARNING. This British Standard calls for the use of substances and/or procedures that can be injurious to health if adequate precautions are not taken. It refers only to technical suitability and does not absolve the user from legal obligations relating to health and safety at any stage.

Use of this document

It has been assumed in the preparation of this British Standard that the execution of its provisions will be entrusted to appropriately qualified and experienced people, for whose use it has been produced.

Presentational conventions

The provisions of this standard are presented in roman (i.e. upright) type. Its requirements are expressed in sentences in which the principal auxiliary verb is "shall".

Commentary, explanation and general informative material is presented in smaller italic type, and does not constitute a normative element.

Contractual and legal considerations

This publication does not purport to include all the necessary provisions of a contract. Users are responsible for its correct application.

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1 Scope

This British Standard specifies requirements for nickel-cobalt-chromium-molybdenum-aluminium-titanium heat-resisting alloy supplied in the following forms, and as parts.

a) Bars and extruded sections for machining: solution treated, designation HR 3A.

b) Extruded sections for subsequent forming: softened, designation HR 3B.

c) Billets and bars for forging: hot or cold worked and subsequently machined or ground, designation HR 3C.

d) Forgings: solution treated, designation HR 3D.

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.

BS HR 100, *Procedure for inspection, testing and acceptance of wrought heat-resisting alloys*

3 Technical requirements

3.1 Material to this standard shall conform to Table 1, Table 2, Table 3 and Table 4.

NOTE The format and symbols used in Table 1, Table 2, Table 3 and Table 4 are derived from EN 4500-1 and EN 4500-3.

3.2 Parts finally heat-treated after machining shall conform to Section **1** and Section **8** of BS HR 100.

3.3 Parts shall be supplied in the solution treated and precipitation treated condition.

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