



AEROSPACE MATERIAL SPECIFICATION	AMS5659™/H1025	REV. C
	Issued 2012-11 Reaffirmed 2018-05 Revised 2022-09 Superseding AMS5659/H1025B	
Steel, Corrosion-Resistant, Bars, Wire, Forgings, Rings, and Extrusions 15Cr - 4.5Ni - 0.30Cb (Nb) - 3.5Cu Consumable Remelted, Solution and Precipitation Heat Treated (H1025) (Composition similar to UNS S15500)		

RATIONALE

AMS5659/H1025C is the result of a Five-Year Review and update of the document. The revision prohibits unauthorized exceptions (1.1, 3.5.3.5, 4.3.4, 5.1, 8.4), revises heat treatment and stress relief (3.4.1, 3.4.2, 3.5), adds strain rate limits (3.5.3.1.1), adds footnotes to Table 1, removes redundant requirements (3.5.3.1.1, 3.5.3.1.2), adds a requirement for conformance to AS6279 (1.1.1, 3.8), updates tolerances and reporting (3.7.1, 4.3.1, 4.3.2), allows prior revisions (8.3), and aligns the document with the other precipitation heat treatment specifications for this alloy.

1. SCOPE

1.1 Form

This specification covers a corrosion-resistant steel product 12 inches (305 mm) and under in nominal diameter, thickness or for hexagons, least distance between parallel sides, and having a maximum cross sectional area of 144 square inches (930 cm²) in the solution and precipitation heat treated (H1025) condition.

1.1.1 The aged product may be supplied directly by a producer or by another entity performing the functions of a producer as defined in AS6279. The latter would be accomplished by precipitation heat treatment of solution treated material previously certified to AMS5659. The entity assuming responsibility for the aging operation is designated the producer of AMS5659/H1025C.

1.2 Application

These products have been used typically for parts requiring corrosion resistance and high strength up to 600 °F (316 °C) with good ductility and strength in the transverse direction in large section sizes, but usage is not limited to such applications (see 8.2).

1.3 Classification

Melting practice classification shall be in accordance with AMS5659.

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