

# AERONAUTICAL MATERIAL SPECIFICATION

Society of Automotive Engineers, Inc.  
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ALLOY CASTINGS, SAND, CORROSION AND HEAT RESISTANT  
Cobalt Base - 28Cr - 5W

1. ACKNOWLEDGMENT: A vendor shall mention this specification number and its revision letter in all quotations and when acknowledging purchase orders.

2. APPLICATION: Parts, such as nozzles, rubbing seals, rollers, guides and supports, requiring wear and/or erosion resistance coupled with a high degree of corrosion and heat resistance, for use at temperature up to 1600 F.

3. COMPOSITION:

Carbon	0.90 - 1.4
Manganese	1.0 max
Silicon	1.5 max
Chromium	27.0 - 31.0
Nickel	3.0 max
Tungsten	3.5 - 5.5
Molybdenum	1.5 max
Iron	3.0 max
Cobalt	Remainder

4. CONDITION: As cast, unless otherwise specified.

5. TECHNICAL REQUIREMENTS:

- 5.1 Hardness: Castings shall have hardness not lower than Rockwell C 40 or equivalent.

- 5.2 Fracture Test: When castings are broken for fracture test, the fracture shall have uniform color and be substantially free from oxides and other defects.

6. QUALITY:

- 6.1 Castings shall be uniform in quality and condition, sound, and free from foreign materials and from internal and external defects detrimental to fabrication or to performance of parts. Castings shall have smooth surfaces and shall be well cleaned.

- 6.2 Unless otherwise specified, castings shall be produced under radiographic control.

- 6.3 Inspection standards and procedures shall be as agreed upon by purchaser and vendor.

- 6.4 Castings shall not be repaired by plugging, welding or other methods, without written permission from purchaser.

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