

# ALLOY 716

## APPLICABLE SPECIFICATIONS

ALLOY 625+, ASTM B805, API6A CRA, NACE MR-0175/ISO 15156, UNS N07716

A precipitation hardenable Nickel-Chromium-Molybdenum based super alloy with high strength combined with excellent corrosion resistance. Offers similar strength to Alloy 718 with additional benefit of corrosion resistance similar to that provided by Alloy 625

## CHEMICAL ANALYSIS RANGE (WT%)

|    |           |           |             |    |           |
|----|-----------|-----------|-------------|----|-----------|
| C  | 0.03 Max  | Ni        | 59.0 – 63.0 | Al | 0.35 Max  |
| Si | 0.2 Max   | Cr        | 19.0 – 22.0 | Fe | Balance   |
| Mn | 0.2 Max   | Mo        | 7.00 – 9.50 | B  | 0.006 Max |
| P  | 0.015 Max | Nb (+ Ta) | 2.75 – 4.00 | Cu | 0.23 Max  |
| S  | 0.01 Max  | Ti        | 1.00 – 1.60 | Pb | 0.001 Max |

## HEAT TREATMENT

SQA bar stock is in the Solution Annealed and Aged condition. Material may be supplied Solution Annealed only upon request.

## TYPICAL MECHANICAL PROPERTIES IN SOLUTION ANNEALED & AGED CONDITION

|                           |                        |
|---------------------------|------------------------|
| 0.2% Yield Strength       | 120000 PSI Min         |
| Tensile Strength          | 150000 PSI Min         |
| Elongation                | 20% Min                |
| Reduction of Area         | 35% Min                |
| Hardness                  | 32 - 43 HRC Max (NACE) |
| Charpy V-Notch @ 60 DEG C | 43/37 Joules           |

The data contained in this publication is for informational purposes only and may be revised at any time without prior notice. The data is believed to be accurate and reliable, but Special Quality Alloys makes no representation or warranty of any kind (express or implied) and assumes no liability with respect to the accuracy or completeness of the information contained herein. Although the data is believed to be representative of the product, the actual characteristics or performance of the product may vary from what is shown in this publication. Nothing contained in this publication should be construed as guaranteeing the product for a particular use or applications

