



Astrup MDS Alloy 718 Rev. 2

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Material Description	Quality
Hot rolled, solution annealed Aged hardened, machined	UNS NO7718

Technical requirements

API 6A 718, NACE MR 0175 / ISO 15156-3:2009
 Ultrasonic test ASTM A388 acc to API 6A para 7.4.2.4.11 PSL4 > Ø3,625" dia
 Macrostructure acc to ASTM A604, Grain size acc to ASTM E 112-10
 Tensile ASTM A370-12 Yield 120-145 KSI, Tensile >=150 KSI
 Hardness max 40HRC acc to NACE MR0175, ASTM E18-11 surface / ½ radius
 Charpy V -40 degree C min 40 Joule
 Heat Treatment API 6A 7.4.1.4.2
 Heat Treatment report, Ultrasonic report, Microstructure report 100x and 500x

Certificate

Acc to EN 10204/3.1

Form of supply

Lengths from 3-4 meter

Marking

Astrup purchase number.
 Each bar to be marked or hard stamped with charge number.

API 6A 7.4.1.4.2 Solution Annealing and Age Hardening

The production material and QTC(s) shall be solution annealed and age hardened in accordance with the following procedure:

- Step 1** – Solution anneal at a material temperature of 1870°F - 1925 °F (1021°C - 1052 °C) for one hour minimum to two and a half hours maximum.
- Step 2** – Cool in air, water, polymer or oil to ambient temperature.
- Step 3** – Age harden at a material temperature of 1425 °F - 1475 °F (774 °C - 802 °C) for six to eight hours.
- Step 4** – Air cool of faster to ambient temperature.