



PRODUCT DATASHEET

# S13%Cr

**Grade**

Martensitic stainless steel (UNS S41425, UNS S41426, S41427, 1.4415 ISO 10088-1, 13-5-2, ASTM A479 )

**Type**

This grade is a supermartensitic stainless steel grade. Compared to other martensitic grades is has low carbon content and additions of titanium and vanadium. The steel has high strength, impact strength, weldability and abrasion resistance, and is resistant to corrosion in mild corrosive environments.

The low carbon improves weldability whilst maintaining a martensitic microstructure. Available in bar and tube form.

Composition	
Element	Weight%
Carbon	0.03 max
Silicon	0.5 max
Manganese	1 max
Phosphorus	0.04 max
Sulphur	0.015 max
Molybdenum	2.5 max
Chromium	11 - 14
Nickel	4.5 - 7
Manganese	1 max
Vanadium	0.5 max
Copper	1 max
Nitrogen	0.12 max

**Application**

Downhole tubular and casing components, packers and subsurface equipment.

**Mechanical Propeties**

Supplied either single or double temper

Property	Values
0.2% Yeild Strength	95 KSI min (655 MPA min)
Ultimate Tensile Strength	105 KSI min (724 MPA min)
Elongation	15
Charpy Impact Toughness	60 min J at -10°C
Hardness	27 - 32 HRC

Notes: Can also be supplied at 110 KSI minimum yield strength, for non-NACE application.