



# ALLOY-SEARCH

## ALLOY-SEARCH DATASHEET

1.4980 – Alloy A-286

### DESCRIPTION

1.4980 – Alloy A-286 is a precipitation hardening, austenitic stainless steel designed for use at elevated temperatures up to 700°C. It possesses high tensile strength, excellent creep strength and good corrosion resistance and if the hardness is <35HRC it is suitable for petrochemical applications use in H<sub>2</sub>S-containing environments in oil and gas production per NACE MR0103 / NACE MR01075.

### APPLICABLE STANDARDS

UNS S66286  
DIN 1.4943 / 1.4944  
EN X6NiCrTiMoV25-15-2 / X4NiCrTi25-15  
AFNOR EZ6NCT25 / EZ6NCTDV25.15  
AMS 5525 / 5731 / 5732 / 5734 / 5737  
BS HR 51 / HR 52 / HR 650  
ASTM A286 / A453 Grade 660 / AISI 660  
NACE MR0103 / MR01705  
Bohler T200 / Pyromet / Incoloy A-286  
JIS G4312 SUH 660  
Other standards available upon request

### CHEMICAL COMPOSITION \*

Element	C	Mn	Si	P	S	Cr	V	Mo	B	Al	Ti	Ni	Co	Fe
Min %	-	-	-	-	-	13.50	0.10	1.00	-	-	1.90	24.0	-	-
Max %	0.08	2.00	1.00	0.040	0.030	16.00	0.50	1.50	0.010	0.35	2.35	27.0	1.00	Balance

\*Per ASTM A453 Grade 660 Class D & AMS 5732

### MECHANICAL PROPERTIES\*

Property	Minimum
UTS	825 Mpa
Rp0.2	655 Mpa
Elongation % in 4D	15%
Reduction of Area %	18%
Elastic Module	201 GPa
Hardness	248 HB.

\*Per ASTM A453 Grade 660 Class D & AMS 5732

### TYPICAL PRODUCTS & USAGE

Wire  
Bolts/Flanges  
Bar/Discs  
Gas Turbines  
Pressure Vessels  
Petrochemical Environments  
Elevated Temperatures

### MATERIAL APPLICATION

Alloy A-286 is an alloy typically used under elevated temperatures and is a common material used for bolts, flanges and especially in petrochemical applications considering its resistance to H<sub>2</sub>S corrosion. Alloy A-286 can be manufactured by first applying a solution annealing heat treatment, followed by ageing and stabilization / precipitation hardening to achieve the desired mechanical properties.

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