

MATERIAL DATA SHEET · TITANIUM

Titanium Grade 2 (UNS R50400) — Chemical Composition & Mechanical Properties

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Titanium Grade 2 (UNS R50400) is a titanium grade for titanium forgings, fittings & pipe (UNS R50400, EN / W.Nr 3.7035). It is also known as CP titanium. This sheet summarises its chemical composition limits, minimum mechanical properties, heat treatment and typical service. Teshi Group manufactures flanges and fittings in this grade.

At a glance

Material family	Titanium
Product form	Titanium forgings, fittings & pipe
UNS	R50400
EN / W.Nr	3.7035
Also known as	CP titanium

Mechanical properties

Tensile strength, min	345 MPa
Yield strength (0.2 % offset), min	275 MPa
Elongation, min	20 %
Yield strength, max	450 MPa
Hardness	Not specified

Chemical composition (weight %)

Ti balance	O 0.25 max	Fe 0.30 max	C 0.08 max	N 0.03 max
H 0.015 max				

Single values are maximums unless shown as a range or "min".

Heat treatment

Annealed

Typical service

Seawater cooling, chlorine, chlorate and desalination

International equivalents (nearest)

USA — specification	Titanium Grade 2 (UNS R50400)
USA — UNS	R50400
Europe — EN designation	Ti Grade 2
Europe — W.Nr	3.7035
Japan — JIS	TTP340 / Class 2 (JIS H4630)
China — GB / NB	TA2 (GB/T 3624)
China — old GB designation	TA2
UK — BS (withdrawn)	BS 2TA

Same alloy in other product forms

Flanges & forgings	ASTM B381 F-2
Butt-weld fittings	ASTM B363 WPT2
Seamless pipe	ASTM B861 Grade 2
Welded pipe	ASTM B862 Grade 2
Plate	ASTM B265 Grade 2
Bar	ASTM B348 Grade 2

Teshi Group — OEM manufacturer of flanges, pipe fittings, fasteners, valves and fabrications; stockist and supplier of pipes, plates and structural steel. ISO 9001:2015 · IBR approved · since 1971. Enquiries: info@teshigroup.com · sales@teshigroup.com · +91 78900 09110

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