



BUREAU VERITAS

Lloyds Register Intertek

Factory Audit

INSPECTION CERTIFICATE ACC EN10204/3.1

MATERIAL CERTIFICATE NO. 201509748

Titanium(Manufacturer and Exporter)
Titanium Metal & Alloy Materials Manufacture.

ISO9001:2008 Certificate NO.4410015880007, (TUV NORD Audit Report No. 2.5-CN1096/2015)

Customer:	Customer PO No:	Test date: 22th Sep. of 2015
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Product: Titanium Seamless Tube	Specification: ASTM B338-10	Titanium GR9
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Heat No	Lot No	Condition	Quantity (pcs)	OD	W/T	Length	Net weight (kg)
CM608	S5801015	Anneal	130	0.25"(6.35mm)	0.035"(0.89mm)	97"(2464mm)	21.8

CHEMICAL COMPOSITION

Element	N, %	H, %	O, %	Fe, %	C, %	Al, %	V, %	Ni, %	Mn, %	Pd, %	Residuals, % max each total	Ti	
Requested	Max 0.03	Max 0.015	Max 0.15	Max 0.25	Max 0.08	2.5-3.5	2.0-3.0	Max	Max	Max	0.1 max	0.4 max	Balance
Test result	0.012	0.0015	0.063	0.041	0.018	2.84	2.37				<0.1	<0.4	Balance

* final product analysis

MECHANICAL PROPERTIES

Tensile Test		Technological Properties			Nondestructive Test		Visual Inspection		Dimensional Inspection	
Tensile Strength MPa	Yield Strength (0.2%) MPa	Hydrostatic Test	Flattening Test	Flaring Test	Eddy Current Test	Ultrasonic Test	In	Out	O.D.	T
Min 620	Min 483	Min 15	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable
651	576	28	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable	Acceptable

Condition:
VAR double remelted, cold mill, annealed.
Materials processing as per ASTM B338-10 satisfactory.

I hereby certify this product conforms to all specially listed technical requirements and other requirements for these specifications, furthermore, I certify the above stated quantitative results were derived testing and analysis, and are in accordance with the referenced specification(s) requirements.

Quality Department

