



BUREAU
VERITAS

Lloyd's Register
Intertek

Factory Audit

INSPECTION CERTIFICATE ACC EN10204/3.1

MATERIAL CERTIFICATE NO. 201509748

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

Titanium(Manufacturer and Exporter)

Titanium Metal & Alloy Materials Manufacture.

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
Test result	0.012	0.0015	0.063	0.041	0.018	2.84	2.37				<0.1	<0.4

* final product analysis

MECHANICAL PROPERTIES

Tensile Strength	Yield Strength	Elongation	Technological Properties			Nondestructive Test		Visual Inspection		Dimensional Inspection
MPa	(0.2%) MPa	A, %	Hydrostatic Test	Flattening Test	Flaring Test	Eddy Current Test	Ultrasonic Test	In	Out	O.D.
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

