

Jiangsu Liangyi Co., Limited

INSPECTION CERTIFICATE AS PER EN10204-3.1

Issued Date

27th of Nov, 2020

Customer	Petrocity Energia Gas Power Plant		Contract No	2020. 375		Certificate No.	020051 79		Smelting process	VIM+ESR		Condition of Delivery			Forged, solution annealed, aged treatment, machined										
Steel Grade	Nimonic 80A		Size	OD75MM, 465MM		standard	as per 601W505		Heat No	2020-088		Batch No		weight	567kg	Piece Number	32PCS								
Chemical Composition (%)	Standard	C	Si	Mn	P	S	Fe	Ni	Cr	Co	W	Mo	Al	Ti	Transverse macro-structures										
		0.04-0.10	≤1.00	≤1.0	≤0.020	≤0.015	≤1.5	≥65	18-21	≤1.0			1.0-1.8	1.8-2.7					Ordinary porosity	Center porosity	Ingot shape segregate	Other Defects			
	Actual	0.075	0.15	0.02	0.002	0.001	1.02	74.9	19.57	0.24			1.36	2.57											
	Standard	Cu	Nb+Ta	V	B	Ca	Pb	Bi	Zr	Sb	Mg	N			Standard										
	Actual	≤0.12			≤0.008										Actual										
Heat Treatment	Mechanical Property				Permanence Property					Hardness		°C Test Temp	Impact Test Value J	White Sports	Freckles	Radial segregation	Ring Segregation								
	°C Test Temp	R _m	R _{p0.2}	A	Z	Test Temp	Stress Test	Rupture time	A	HB	HRC			Standard											
		MPa	MPa	%	%	°C	MPa	h	%				Standard												
	Standard	Eoom	≥1000	≥600	≥20					Standard				Standard		Actual									
	Actual		1217	777	24.5					≥260			Actual												
Standard									Actual				Standard		Actual										
Actual									339					Standard		Actual									
Non-metallic Inclusions (Grade)	A		B		C		D		DS		Grain size (grade)	Max. 1 mm diameter, isolated larger grains are tolerated up to maximum 2 mm diameter.	Laves	Etch test	Forging Ratio	Surface inspection	Size inspection	Ultrasonic inspection as per ASTM E2375-08 Class AA.							
	Thin	Heavy	Thin	Heavy	Thin	Heavy	Thin	Heavy																	
	Standard																								
Actual										0.002	0.004					Ok	Ok	Ok							
Notes	Through inspection and testing the quality of this product conforms to the stipulations of the related contract and standard(s)																								

Issued By:

范卫东



Stamp Of Department Of Quality Assurance