

**CERTIFICATE OF ANALYSIS: 202404180024**

Material Grade	Hastelloy X Powder	Product No.	NAMHX-45105
Customer No.	ILB	Order No.	ILB-240410
Lot No.	20240218-01	Quantity	5 kg
Process	Gas Atomizing	Powder Size	45-105µm

**Chemical Compositions / wt%**

Element	Specification	Tested
Ni	Bal	Bal
Mo	8.0-11.0	8.99
Fe	17.0-20.0	17.78
Cr	20.5-23.0	21.63
Co	0.5-2.5	1.73
W	0.2-1.0	0.76
Si	1.0 max.	0.16
Mn	1.0 max.	0.76
Al	0.5 max.	0.041
Ti	0.15 max.	0.027
Cu	0.5 max.	0.02
C	0.05-0.15	0.069
S	0.015 max.	0.0016
P	0.025 max.	0.0008
O	/	0.029

Standards: GB/T 14265, GB/T 23942

**Powder Property**

Particle Size Distribution (laser diffraction analysis)	D10/um	D50/um	D90/um	Standards
	45.8	67.1	100.3	GB/T 19077
Flowability (s/50g)		16.9		GB/T 1482
Apparent density (g/cm <sup>3</sup> )		4.19		GB/T 1479.1

Test condition: Temperature 25° C, Humidity 40%

Judgment: Pass



Check: Y.Tang

Approval: L.Zhang

Date: 2024-04-18