

1. Introduction

With over 35 years of expertise in metal powder manufacturing, Sentes-BIR offers a comprehensive portfolio of high-quality powders tailored for additive manufacturing applications. All powders are produced in-house using advanced gas atomization (GA) and vacuum inert gas atomization (VIGA) technologies, ensuring superior purity and consistency. Each production batch is subject to strict quality control in our ISO 17025-accredited laboratory, guaranteeing reliable and repeatable performance.

Our powders are manufactured under internationally recognized quality systems — AS 9100 for aerospace, ISO 13485 for medical, IATF 16949 for automotive, and ISO 9001 — providing full traceability from raw material to finished product. Sentes-BIR powders have been tested and validated in industry-standard LPBF machines, confirming their suitability for demanding additive manufacturing applications across critical industries.

2. Material Groups and Alloys

Product Code	UNS	Composition	Common Name
Nickel			
PURESPHERE 9718	N07718	Ni 18Cr 18Fe 5(Nb+Ta) 3Mo 1Ti 0.6Al	Alloy 718
PURESPHERE 9738	N07738	Ni 17Cr 7(Al+Ti) 9Co 0.1C 2Mo 1.5Ta 0.06Zr	Alloy 738LC
PURESPHERE 9625	N06625	Ni 21Cr 9Mo 4Fe 4(Nb+Ta) 0.4Al 0.4Ti	Alloy 625
PURESPHERE 96002	N06002	Ni 21Cr 18Fe 9Mo	Alloy X
PURESPHERE 97208	N07208	Ni 20Cr 10Co 8.5Mo 1.5Al 2.1Ti	Alloy 282
PURESPHERE 9939	N09939	Ni 22Cr 19Co 3.7Ti 2W 1.9Al 1.4Ta 1Nb	Alloy 939
Cobalt			
PURESPHERE 43055		Co 25Cr 6W 6Mo	
PURESPHERE 43075A		Co 28Cr 6Mo	F75
PURESPHERE 43075	R30075	Co 28Cr 6Mo	F75
Titanium			
PURESPHERE 70164	R56403	Ti 6Al 4V	Titanium Grade 23
Stainless Steel			
PURESPHERE 60316L	S31603	Fe 18Cr 12Ni 2Mo 0.02C	316L
Copper			
PURESPHERE 11000LO	C10100	Cu	Copper OFHC
PURESPHERE 11000	C10200	Cu	Copper HC
PURESPHERE 11410	C18150	CuCrZr	Copper Chromium Zirconium
PURESPHERE 12006	C90200	Cu 6Sn	Phosphor Bronze
PURESPHERE 11030	C96400	Cu 30Ni	70-30 Copper-Nickel
Aluminum			
PURESPHERE 1410	A03560	Al 10Si Mg	AlSi10Mg