

CHEMICAL COMPOSITION

Alloy	Standard	Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Nitrogen (N)	Molybdenum (Mo)
Stainless steel 304 S30400	ASTM A580 ASTM A478 ASTM A313	≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	18.0-20.0	8.0-10.5	≤ 0.10	
Stainless steel 304L S30403	ASTM A580	≤ 0.03	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	18.0-20.0	8.0-12.0	≤ 0.10	
Stainless steel 316 S31600	ASTM A580	≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	16.0-18.0	10.0-14.0	≤ 0.10	2.0-3.0
Stainless steel 316L S31603	ASTM A580	0.03	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	16.0-18.0	10.0-14.0	≤ 0.10	2.0-3.0

Alloy	Standard	Carbon (C)	Manganese (Mn)	Phosphorus (P)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Copper (Cu)	Others
Stainless steel 302HQ S30430	ASTM A493 QQ-S-763	≤ 0.03	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	17.0-19.0	8.0-10.0	3.0-4.0	
Stainless steel 310 S31000	ASTM A580	≤ 0.25	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.50	24.0-26.0	19.0-22.0		
Stainless steel 314 S31400	ASTM A580	≤ 0.25	≤ 2.00	≤ 0.045	≤ 0.03	1.5-3.0	23.0-26.0	19.0-22.0		
Stainless steel 321 S32100	ASTM A580 ASTM A313	≤ 0.08	≤ 2.00	≤ 0.045	≤ 0.03	≤ 1.00	17.0-19.0	9.0-12.0		Titanium (Ti): 5xC

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Stainless steel 410 S41000	ASTM A580	≤ 0.15	≤ 1.00	≤ 0.04	≤ 0.03	≤ 1.00	11.5-13.5
Stainless steel 430 S43000	ASTM A580	≤ 0.12	≤ 1.00	≤ 0.04	≤ 0.03	≤ 1.00	16.0-18.0

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Stainless steel 904L N08904	ASTM A240	≤ 0.02	≤ 2.00	≤ 0.045	≤ 0.035	≤ 1.00	19.0-23.0	23.0-28.0	≤ 0.10	4.0-5.0	1.0-2.0
Duplex stainless steel 2205 S32205	ASTM A240	≤ 0.03	≤ 2.00	≤ 0.03	≤ 0.02	≤ 1.00	22.0-23.0	4.5-6.5	0.14-0.20	3.0-3.5	
Super duplex stainless steel 2507 S32750	ASTM A240	≤ 0.03	≤ 1.2	≤ 0.035	≤ 0.02	≤ 0.8	24.0-26.0	6.0-8.0	0.24-0.32	3.0-5.0	≤ 0.5
Duplex stainless steel 2209 S39209	AWS A5.9	≤ 0.03	0.5-2.0	≤ 0.03	≤ 0.03	≤ 0.9	21.5-23.5	7.5-9.5	0.08-0.20	2.5-3.5	≤ 0.75

Alloy	Standard	Copper (Cu)	Lead (Pb)	Iron (Fe)	Zinc (Zn)	Phosphorus (P)	Tin (Sn)	Other each	Other Total
C24000 80-20 Low Brass	ASTM B134	78.5-81.5	≤ 0.05	≤ 0.05	Balance	-	-	-	-
C27000 65-35 Yellow Brass	ASTM B134	63.0-68.5	≤ 0.09	≤ 0.07	Balance	-	-	-	-
C51000 Phosphor Bronze 5% Grade A	ASTM B159	Balance	≤ 0.05	≤ 0.1	≤ 0.3	0.03-0.35	4.2-5.8	≤ 0.5	≤ 0.5
C51900 Phosphor Bronze 6% Grade A	ASTM B103	Balance	≤ 0.05	≤ 0.1	≤ 0.3	0.03-0.35	5.0-7.0	≤ 0.5	≤ 0.5

Alloy	Standard	Copper (Cu)	Oxygen (O)
C10200 CDA 102 Copper	ASTM B68 ASTM B111	≥ 99.95	≤ 0.001
C11000 CDA 110 Copper	ASTM B3	≥ 99.9 Copper (Cu)+ Silver (Ag)	

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N10276 Hastelloy C-276	ASTM B574	≤ 0.01	≤ 1.00	≤ 0.04	≤ 0.03	≤ 0.08	14.5-16.5	Balance	15.0-17.0	4.0-7.0	3.0-4.5	≤ 2.5	≤ 0.35

Alloy	Standard	Carbon (C)	Manganese (Mn)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Molybdenum (Mo)	Titanium (Ti)	Copper (Cu)	Iron (Fe)	Aluminum (Al)
N08825 Incoloy 825	ASTM B425	≤ 0.05	≤ 1.00	≤ 0.03	≤ 0.5	19.5-23.5	38-46	2.5-3.5	0.6-1.2	1.5-3.0	≥ 22.0	≤ 0.2

Alloy	Standard	Carbon (C)	Manganese (Mn)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Copper (Cu)	Iron (Fe)	Aluminum (Al)
N06600 Inconel 600	ASTM B166	≤ 0.15	≤ 1.00	≤ 0.015	≤ 0.5	14.0-17.0	≥ 72	≤ 0.5	6.0-10.0	
N06601 Inconel 601	ASTM B166	≤ 0.1	≤ 1.00	≤ 0.015	≤ 0.5	21.0-25.0	58-63	≤ 1.0	Balance	1.0-1.7

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N06625 Inconel 625	ASTM B446	≤ 0.1	≤ 0.5	≤ 0.015	≤ 0.015	≤ 0.5	20-23	≥ 58	8.0-10.0	≤ 0.4	Max	≤ 5.0	≤ 1.0	3.15-4.15	0.4

Alloy	Standard	Carbon (C)	Manganese (Mn)	Silicon (Si)	Chromium (Cr)	Iron (Fe)	Aluminum (Al)
Kanthal A-1 FeCrAl Alloy	ASTM B603	≤ 0.08	≤ 0.4	≤ 0.7	20.5-23.5	Balance	2.75-6.0

Alloy	Standard	Carbon (C)	Manganese (Mn)	Silicon (Si)	Chromium (Cr)	Iron (Fe)	Copper (Cu)	Nickel (Ni)
N04400 Monel 400	ASTM B164	≤ 0.3	≤ 2.00	≤ 0.024	≤ 0.5	≤ 2.5	28-34	≥ 63

Alloy	Standard	Carbon (C)	Manganese (Mn)	Sulfur (S)	Silicon (Si)	Chromium (Cr)	Nickel (Ni)	Iron (Fe)
N06003 Nichrome V 80-20 Chromel A	ASTM B344	≤ 0.15	≤ 1.00	≤ 0.01	0.75-1.75	19-21	Balance	≤ 1.0