

RANGE OF MANUFACTURED MATERIALS - FOUNDRY

Material	Standard Designations				Standard Designations
	DIN	ASTM	UNS	Others	
1.4034	1.4034	-	-	-	Ferrite / Martensite
1.4027	SEW410-14027	-	-	-	Ferrite / Martensite
1301	10283 - 1.4008	A743 - (CA15)	J91150	(AISI 414)	Ferrite / Martensite
1304	10283 - 1.4317	A743 - CA6NM	J91540	(AISI 1.4313)	Ferrite / Martensite
1604CuNB	10283-1.4527	A747 - CB7Cu-1	J92180	-1.454	Mart. - hardened through precipitation
1810	17445 - 1.4308	A743 - CF8	J92600	(1.4301)(AISI 304)	Austenite + Ferrite(0 - 15%)
1810LN	10283 - 1.4306	A743 - CF8	D92500	(1.4306) (AISI 304L)	Austenite + Ferrite(0 - 15%)
1810Nb	10583 - 1.4552	A743 - CF8C	D92M10	(1.4550) (AISI 347)	Austenite + Ferrite(0 - 15%)
1711/2.5	10283 - 1.4408	A743 - CF8M	J92900	(1.4401)(AISI 316)	Austenite + Ferrite(0 - 15%)
1711/2.5LN	10283 - 1.4404	A743 - CF3M	J92800	(1.4404)(AISI 316L)	Austenite + Ferrite(0 - 15%)
1711/2.5Nb	10283 - 1.4581	A351 - (CF10MC)	J92971	(AISI 318)(1.4580)	Austenite + Ferrite(0 - 15%)
1711/2.5N	10283 - 1.4446	A743 - CG3M	(J92999)	(AISI 317LN)(1.4439)	Austenite + Ferrite(0 - 15%)
2512	10295 - 1.4837	A297 - HH	J93503	(AISI 309)	Austenite
2520	10295 - 1.4848	A297 - HK	J94224	(AISI 310)	Austenite
1.4361	-1.4361	-	-	-	Super - Austenitic High Si
1.4529	-1.4529	-	J94651	-	Super - Austenitic
2025/4.5Cu	-1.4539	10283 - 1.4584	J94650	(1.4539)(AISI 904L)	Super - Austenitic
1.45	1.45	-	-	-	Super - Austenitic
2606N	10283 - 1.4347	-	-	-	Duplex (Aust+Ferrite)
2205/3N	10283 - 1.4470	A890 - CD3MN	D92205 (1.4462)	-	Duplex (Aust+Ferrite)
2604.5/1.5N	-1.446	A890 - (CD6MN)	J93371	(AISI 329)	Duplex (Aust+Ferrite)
2408/2	1.4463	A890 - (CE8MN)	(J93345)	-	Duplex (Aust+Ferrite)
2705/2	SEW410 - 1.4464	-	-	-	Duplex (Aust+Ferrite) + Carb.
2606/2.5CuN	10283 - 1.4517	A890 - (CD4MCuN)	J93372	-	Duplex (Aust+Ferrite)
2.466	-2.466	-	N08020	(ALLOY 20)	Austenite + Phase Intermetal.
2.4602	-2.4602	A494 - CX2MW	N26022	(HASTELLOY C22)	Austenite + Phase Intermetal.
2.4686	-2.4686	A494 - CW2M	N26455	(HASTELLOY C4)	Austenite + Phase Intermetal.
2.481	-2.481	A494 - N12MV	N30012	(HASTELLOY B)	Austenite + Phase Intermetal.
2.4856	-2.4856	A494 - CW6MC	N26625	(INCONNEL 625)	Austenite + Phase Intermetal.

() = Inside the parenthesis, similar materials.

NOTE: We produce other materials, according to standards or client's specifications.

CHARACTERISTICS OF PRODUCED MATERIALS - FOUNDRY

Material	Chemical Composition (%) (1)					Shrinkage - Density
	C	Cr	Ni	Mo	Outros	(%) - (g/cm ³)
1.4034	0.42-0.50	12.5-14.5	-	-	-	2.0 - 7.70
1.4037	0.16-0.23	12.5-14.5	1.0 MAX	-	-	2.0 - 7.70
1301	0.1	12.0-13.5	1.00-2.00	0.20-0.50	-	2.0 - 7.73
1304	0.06	12.0-13.5	3.50-4.50	0.40-0.70	-	2.0 - 7.77
1604CuNb	0.017	15.5-17.0	3.60-4.60	-	Cu=2.50-3.20 Nb=0.15-0.35	2.0 - 7.77
1810	0.07	18.0-19.0	8.00-11.0	-	-	2.5 - 7.77
1810LN	0.03	18.0-20.0	9.00-12.0	-	N=0.10-0.20	2.5 - 7.74
1810Nb	0.07	18.0-20.0	9.00-12.0	-	Nb=8xC-1.00	2.5 - 7.78
1711/2.5	0.07	18.0-20.0	9.0-12.0	2.00-2.50	-	2.5 - 7.84
1711/2.5LN	0.03	18.0-20.0	9.0-12.0	2.00-2.50	N=0.10-0.20	2.5 - 7.81
1711/2.5Nb	0.07	18.0-20.0	9.0-12.0	2.00-2.50	Nb=8xC-1.00	2.5 - 7.84
1711/2.5N	0.03	16.5-18.5	12.5-14.5	4.00-4.50	N=0.12-0.22	2.5 - 7.91
2512	0.30-0.50	24.0-26.0	11.0-14.0	-	-	2.5 - 7.71
2520	0.30-0.50	24.0-26.0	19.0-22.0	-	-	2.5 - 7.79
1.4361	0.03	17.0-18.5	14.5-15.5	-	Si=3.8-4.5 N=0.10-0.15	2.5 - 7.65
1.4529	0.03	19.0-21.0	24.0-26.0	5.50-7.00	Cu=1.0-2.0 N=0.05-0.10	2.5 - 8.10
2025/4.5Cu	0.025	19.0-21.0	24.0-26.0	4.00-5.00	Cu=1.00-3.00	2.5 - 8.04
1.45	0.06	19.0-21.0	24.0-25.0	2.50-3.50	Cu=1.50-2.50 Nb>8xC	2.5 - 8.02
2606N	0.08	25.0-27.0	5.5-7.5	-	N=0.10-0.20	2.0 - 7.70
2205/3N	0.03	21.0-23.0	4.5-6.5	2.5-3.5	N=0.12-0.20	2.0 - 7.77
2604.5/1.5N	0.05	25.0-27.0	4.50-6.00	1.75-2.00	N=0.15-0.20	2.0 - 7.72
2408/2	0.07	23.0-25.0	7.00-8.50	2.00-2.50	-	2.0 - 7.77
2705/2	0.30-0.50	26.0-28.0	4.00-6.00	2.00-2.50	-	2.0 - 7.67
2606/2.5CuN	0.03	24.5-26.5	5.00-7.00	2.50-3.50	Cu=2.75-3.50 N=0.12-0.22	2.0 - 7.79
2.466	0.05	19.0-21.0	36.0-38.0	2.0-3.0	Cu=3.0-4.0 Nb=8xC-1.0	2.5 - 8.10
2.4602	0.02	20.0-22.5	Base	12.5-14.5	W=2.5-3.5 Fe=2.0-6.0	2.5 - 8.67
2.4686	0.02	15.5-17.5	Base	15.0-17.5	-	2.5 - 8.79
2.481	0.12	1.0 MAX	Base	26.0-30.0	V=0.2-0.6 Fe=4.0-6.0	2.5 - 9.11
2.4856	0.06	20.0-23.0	Base	8.0-10.0	Nb=3.15-4.15	2.5 - 8.58

(1) = Maximum concentrations, unless indicated limits.

PROPERTIES OF MANUFACTURED MATERIALS - FOUNDRY

Material	Mechanical Properties (2)					Heat Treatment
	Yiels 0.2%	Strength	Elongation	Impact ISO-V	Hardness	
	MPa	MPa	%	Joule	HB	
1.4034	-	[<=800]	-	-	[<=275]	Annealed
1.4027	440	590-790	12	-	180-240	Annealed
1301	440	590-790	15	27	170-240	Annealed + Quenched + Tempered
1304	500/830*	700-920*	12/16*	35/50*	<285	Annealed + Quenched + Tempered
1604CuNb	750/1000*	900/1100*	5/12*	0/20*	269/375*	Annealed + Quenched
1810	205	485-640	35	60	130-200	Solution Annealed
1810LN	205	485	35	80	-	Solution Annealed
1810Nb	205	485	30	40	130-200	Solution Annealed
1711/2.5	205	485-640	30	60	130-200	Solution Annealed
1711/2.5LN	205	485	30	80	-	Solution Annealed
1711/2.5Nb	185	440	25	40	130-200	Solution Annealed
1711/2.5N	240	515	25	50	130-200	Solution Annealed
2512	240	515	10	-	-	"As Casting"
2520	240	450	10	-	-	"As Casting"
1.4361	200	500	20	60	130-200	Solution Annealed
1.4529	[270]	[600-800]	[30]	[90]	-	Solution Annealed
2025/4.5Cu	185	450	30	60	-	Solution Annealed
1.45	200	450	30	65	130-200	Solution Annealed
2606N	420	590	20	30	[190-230]	Solution Annealed
2205/3N	420	620	25	30	-	Solution Annealed
2604.5/1.5N	450	655	25	-	190-230	Solution Annealed
2408/2	390	590-790	20	-	170-200	Solution Annealed
2705/2	-	-	-	-	230-300	Annealed
2606/2.5CuN	480	650-850	22	50	-	Solution Annealed
2.466	[270]	[590]	[30]	-	-	Solution Annealed
2.4602	310	550	30	-	-	Solution Annealed
2.4686	275	495	20	-	-	Solution Annealed
2.481	275	525	6	-	-	Solution Annealed
2.4856	275	485	25	-	-	Solution Annealed

(2) = Minimum values, unless indicated limits.

[] = For orientation only - values for rolled products.

(*) = Minimum values, depending on quenched/tempered temperatures.