

Super Alloy Compositions - Gas Turbine Materials

SULZER TURBO SERVICES makes no warranty or representation of any kind with respect to the information contained in these documents, and shall in no way be deemed or held liable or accountable for any damages whatsoever under any warranties or representations, expressed or implied, by operation of law or otherwise.

Alloy	Composition in weigh percent																									
	Ni	Cr	Co	Mo	W	Al	Ti	Nb	Ta	Fe	Si	Mn	V	C	B	Zr	Hf	N	Ce	La	Re	Y+ox	P	S	Cu	
15-5 PH	4.5	15						0.3		76		0.2		0.04												3.5
17-4 PH	4.3	16						0.2		76		0.4		0.04												3.4
17-7 PH	7.3	17				1.2				74		0.7		0.06												
A 286	26	15		1.3		0.2	2			53	0.5	1.5	0.3	0.05	0.005											
AISI 304L	9	18.3								70	0.5	1.7		0.02				0.08								
AISI 308	11	22								64	0.6	2		0.07												
AISI 309	13	23								62	0.8	1.6		0.05												
AISI 310	20	25								52	0.5	1.6		0.05												
AISI 312	9.2	30								58	0.5	1.7		0.12												
AISI 314	20	25								51	2.2	1.5		0.1												
AISI 316L	10.2	16.4		2.1						69	0.5	1.6		0.02				0.05								
AISI 317L	14	18		3.1						63	0.5	1.5		0.02												
AISI 321	9.5	17.5					0.4			70	0.7	1.5		0.04												
AISI 347	9.5	17						0.5		71	0.7	1.5		0.04												
AISI 403 Cb		12						0.2		87		0.5		0.15												
AISI 405		12				0.3				87	0.3	0.5		0.06				0.04								
AISI 409		11.5					0.4			87	0.4	0.3		0.015												
AISI 410		13								86	0.4	0.4		0.2												
AISI 414	1.9	12.3								84	0.6	0.7		0.13				0.1								
AISI 416		13								85	0.5	1		0.05									0.04	0.2		
AISI 420		13								86	0.4	0.4		0.2												
AISI 422	0.7	13		1	1					82	0.2	0.8	0.25	0.22				0.03								
AISI 430		16								83	0.5	0.5		0.08												
AISI 431	1.9	15.6								81	0.2	0.4		0.1												
AISI 439		17.2					0.5			81	0.5	0.4		0.015				0.015								
AISI 440A		17		0.5						81	0.2	0.4		0.67												
AISI 440B		17		0.5						81	0.2	0.4		0.8												
AISI 440C		17		0.5						81	0.2	0.4		1.07												
AISI 446		25								73	0.5	0.7		0.05												
Alloy 713C	74	12.5		4.2		6.1	0.8	2						0.12	0.012	0.1										
Alloy 713LC	75	12		4.5		5.9	0.6	2						0.05	0.01	0.1										
AM 1	61.6	8	6	2	6	5.2	1.2	0	9							1										
AM 2	67	8	6	2	5	6	2	0	4																	
Avesta 253MA	11	21								65	1.7	0.6		0.08					0.17	0.04						
Avesta 353MA	35	25								36	1.5	1.5		0.05					0.16	0.05						
B-1900	65	8	10	6	0	6	1	0	4					0.1	0.015	0.1										
C-1023	58	15.5	10	8.5	0	4.2	3.6	0	0					0.16	0.006	0.15										
CM 186 LC	65.7	6	9	0.5	8	5.7	0.7		3						0.015	0.005	1.4									
CMSX-10	69.6	2	3	0.4	5	5.7	0.2	0.1	8								0.03				6					
CMSX-11B	62.1	12.5	7	0.5	5	3.6	4.2	0.1	5								0.04									
CMSX-11C	64.5	14.9	3	0.4	4.5	3.4	4.2	0.1	5								0.04									
CMSX-2	65.8	8	5	0.6	8	5.6	1	0	6																	
CMSX-2	66	8	4.6	0.6	7.9	5.6	0.9	0	5.8					0	0	0										
CMSX-4	61.7	6.5	9	0.6	6	5.6	1	0	6.5								0.1				3					
CMSX-6	70.4	10	5	3	0	4.8	4.7	0	2								0.1									
CUSTOM 450	6.5	15		0.7				0.7		75		0.4		0.03												1.5
CUSTOM 455	8.5	11.5					1.1	0.3		76		0.2		0.02												2
DD 3	68.2	9.5	5	4	5.5	5.8	2	0	0																	
DD 6	61	4.3	9	2	8	5.6	0	0.5	7.5									0.1			2					
FSX 414	10	29	53		7					1				0.25	0.01											
Greek Ascology	2	12.6			3					82	0.3	0.3		0.12												
GTD 111	60	14	9.5	1.5	3.8	3	4.9		2.8					0.1	0.01	0.05										
GTD 222	51	22.5	19		2	1.2	2.3	0.8	1					0.1	0.008	0.05										
GTD 241																										
GTD 444	62.1	9.8	7.5	1.5	6	4.2	3.5	0.5	4.8					0.09	0.009											
Hast X	49	22		9	0.6					18.5	0.3	0.5		0.1												
Hastelloy S	66	16		15	0.5	0.3					0.5	0.6		0.01	0.005					0.05						
Haynes 120	37	25				0.1	0.1	0.6		36	0.6	0.7		0.05	0.004			0.2								
Haynes 150		28	50							20	0.7	0.6		0.08												
Haynes 160	38	28	27							4	2.8	0.5		0.05												
Haynes 188	22	22	39		14					3				0.1	0.01					0.07						
Haynes 214	76	16				4.5				2.5												0.01				
Haynes 230	60	22		1.5	14	0.3				1	0.4	0.5		0.1	0.004					0.02						
Haynes 242	66	8		25						1	0.02			0.02												
Haynes 25 - L 605	10	20	52		15					1	0.2	1.5		0.05												
Haynes 282	56.5	19.5	10	8.5		1.5	2.1			1.5	0.15	0.3		0.06	0.005											
Haynes 556	20	22	20	3	2.5	0.3			0.9	31				0.1				0.2		0.02						
HK 40	20	25								52	1.4	0.6		0.4												
In 100	60	10	15	3	0	5.5	4.7	0	0				1	0.18	0.014	0.06										
In 600	76	15.5								8	0.2	0.3		0.08												
In 601	61	23				1.4				14	0.2	0.3		0.05												
In 617	55	22	12.5	9		1	0.3				0.1	0.1		0.07												
In 6201	47.4	20	20.5	0.55	2.4	2.4	3.5	1	1.4					0.033	0.78	0.06										
In 6203	48.3	22	19		2	2.3	3.5	0.8	1.1					0.15	0.01	0.1	0.75									
In 625	63	21.5		9		0.2	0.2	3.6		2.5				0.05												
In 738	62	16	8.5	1.7	2.6	3.4	3.4	0.9	1.7					0.11	0.01	0.05										
In 792	61	12.4	9	1.9	3.8	4.5	3.1		3.9					0.12	0.015	0.05										
In 939	48	22.5	19		2	1.9	3.7	1	1.4					0.15	0.009	0.09										
INCOLOY alloy 020	34	20		3				1		38																

