



**PROCESS PRODUCTS INC.**  
*Critical Application Fastener Solutions*

# **STEAM AND GAS TURBINE MATERIALS USED FOR FASTENERS & HARDWARE SUPPLIED BY PPI**



## CARBON AND ALLOY STEELS

EUROPEAN GRADES	NORTH AMERICAN GRADES	AMS	JIS	SIEMENS	MITSUBISHI	GE	MATERIALS COMMON NAME
25CrMo4 (W.Nr.1.7218)	SAE-AISI 4130 (UNS G41300) ASTM A322 GRADE 4137 (UNS G41370)	AMS 6348	SCM420/SCM430 SNCM435/SNC631	DGTLV-815209001		GTC-1911	
34CrRm04 (W.Nr.1.7220)	ASTM A434 GR BB (AIS 4135)	AMS 6365		10305AN			
34CrNiMo6 (W.Nr.1.6582)	SAE- AISI 4340 (UNS G43400)	AMS 6415		10305BA			
42CrMo4 (W.Nr.1.7225)	SAE- AISI 4140 (UNS G41400)	AMS 6349	SCM440(H)	10305DA/TLV 81540100a-PART 2			
41CrAlMo7 (W.Nr.1.8509)	ASTM A355 CLASS A/B/C/D	AMS 6470/6471/6472	SACM645	10305HD		B5E1A S-22	NITRALLOY 135 (NITRIDING STEEL)
42CrMo56 (W.Nr.1.7233)	NO EQUIVALENT						DUREHETE 900
40CrMoV46 (W.Nr.1.7711)	ASTM A193 GRADE B16			10305DU/DGTLV-819141001	GTC-1917/GTC-0009	B5F5B-S24	DUREHETE 950
20CrMoVTiB4-10 (W.Nr.1.7729)	ALLOY T41						DUREHETE 1055
21CrMoV57 (W.Nr.1.7709)	NO EQUIVALENT			TLV918601/DGTLV-818609001/ DGTLV-818641001			
	ASTM A36			10110BC			
	ASTM A515 GR 65; ASTM A515 GR 70;ASTM A516 GR 70			10110BJ;10110DU ; 10110PM			
	ASTM A516 GR 55			10110DN			
	ASTM A387 GRADE 22 CLASS 2			10310FG			
	ASTM A572 GR 42/50/55/60/65			DPTLV-00000125			
S355J2(W.Nr.1.0057)				DGTLV-804802001			
P235GH (W.Nr.1.0345) (REPLACES St35.8)				DGTLV-805542001			
C35E (W.Nr.1.1181)				DGTLV-806102001			
16Mo3(W.Nr.1.5415)				"DGTLV-817001001/DGTLV -817020001/ DGTLV-817041001/DGTLV-817041002/ DGTLV-817042001/DGTLV-817050001			
S235JR (W.Nr.1.0038)				DGTLV-804441001			



## STAINLESS STEEL

EUROPEAN GRADES	NORTH AMERICAN GRADES	AMS	JIS	SIEMENS	MITSUBISHI	GE	MATERIALS COMMON NAME
X12CrNiMoV12-3 (W.Nr.1.4938)	UNS S64152						JETHETE M152
X20Cr13 (W.Nr.1.4021)	AISI 420						
X22CrMoV12-1 (W.Nr.1.4923)	422 STAINLESS STEEL; SIMILAR: ASTM A565 GRADE 616HT OR ASTM A437 GRADE B4B	AMS 5655		DGTLV-824822001/DGTLV-824831001	GTC-1903	B50A125	
	AISI 422 STAINLESS STEEL (SPECIAL)			10705Z2/10705BU	GTC-0008 (10705BU-ST)	B50A951A1	
X19CrMoNbVN11-1 (W.Nr.1.4913)	SIMILAR BUT NOT AN EQUIVALENT TO AISI 422 SS						
	ASTM A193 GRADE B5			10705AD	GTC-1901		
	12CrMoWVnb STEEL				10705MBU/GTC-0028		
X12Cr13 (1.4006)/X12CR12 (W.Nr.1.4011)	AISI 403/410 OR ASTM A193 GRADE B6		SUS 403/SUS 410	10702PT/10702HA-HH/10705AM/ 10705BA-BC	GHS-0067		
X12CrS13	AISI 416 (UNS S41600)		SUS 416				
X5CrNi18-10(1.4301)/ X2CrNi18-9(W.Nr.1.4307)	AISI 304/304L (UNS S30400)	AMS 5639	SUS 304	10701DH/10705DH-DJ/10705KJ			
	AISI 304H ( UNS S30409)			10705KL			
X8CrNi25-21(W.Nr.1.4845)	AISI 310 (UNS S31000/UNS S31008)	AMS 5651	SUS 310S	10702RL/10701A2/10705FD			
	AISI 310H (UNS S31009)			10705FD			
X5CrNiMo17-2-2 (W.Nr.1.4401/1.4404)	AISI 316/316L (UNS S31600)	AMS 5648	SUS 316	10710EG/10705KP			
X6CrNiMoTi17-12-2(W. Nr.1.4571)	AISI 316Ti (UNS S31635)		SUS 316Ti	DGTLV-836501001/DGTLV-836541001			
X6CrNiTi18-10 (W.Nr.1.4541)	AISI 321 (UNS S32100)	AMS 5645	SUS 321	10705EN / DGTLV-836041001/ 10705EA/10706GA			
X6CrNiNb18 (W.Nr.1.4550)	AISI 347 (UNS S34700)	AMS 5646	SUS 347	10705EG			XM-19
X5CrNiCuNb16-4 (W.Nr.1.4542)	17-4PH(UNS S17400)	AMS 5643					
NO EQUIVALENT	XM-19 (UNS S20910)	AMS 5764	SUS XM 19				NITRONIC 50
NO EQUIVALENT	XM-28 (UNS S24100)	AMS -S-24100		10705CD			XM-28 (ALLOY 32)
NO EQUIVALENT	UNS S21800	AMS 5848					NITRONIC 60
X2NiCrMoCu25-20-5 (W.Nr.1.4539)	UNS N08904						ALLOY 904L



## NICKEL AND EXOTIC ALLOYS

EUROPEAN GRADES	NORTH AMERICAN GRADES	AMS	JIS	SIEMENS	MITSUBISHI	GE	MATERIALS COMMON NAME
NiCr21Mo14W (W.Nr.2.4602)	UNS N06022						HASTELLOY C22
NiCr16Mo15W (W.Nr.2.4819)	UNS N10276	AMS 5750	QA C276				HASTELLOY C276
NiCr22Fe18Mo (W.Nr. 2.4665)	UNS N06002	AMS 5754	QA X	15102QE	GGC-0023		HASTELLOY X
X6NICRTIMOV25-15-2 (W.Nr. 1.4980)	UNS S66286	AMS 5732.AMS 5737	JIS G4312	10705C4			INCOLOY A286
NiCr15Fe (W.Nr. 2.4816)	UNS N06600	AMS 5665	NCF 600				INCONEL 600
NiCr23Fe15 (W.Nr. 2.4851)	UNS N06601	AMS 5715	NCF 601				INCONEL 601
NiCr22Mo9Nb (W.Nr. 2.4856)	UNS N06625	AMS 5666	QA 625	15105DA-DB			INCONEL 625
NiCr19Fe19Nb5Mo3 (W.Nr. 2.4668)	UNS N07718	AMS 5662/AMS 5663/ AMS 5664		71020Z1, 15105AY,DGTLV-856621001/ DGTLV-856624001	GTC-0057	B50TF14/15	INCONEL 718
NiCr15Fe7TiAl (W.Nr. 2.4669)	UNS N07750	AMS 5667/AMS 5668		71020Z3, 15105A1,15130CE	GGC-0024	B14H41	INCONEL X750
X10NiCrAlTi32-20 OR -21 (W.Nr. 1.4876)	UNS N08800	AMS 5766	NCF 800				INCOLOY 800
X10NiCrAlTi32-20 OR -21 (W.Nr. 1.4958, W.Nr.1.4959)	UNS N08810, UNS N08811	AMS 5766	NCF 800H				INCOLOY 800H, 800HT
NiCr21Mo (W.Nr. 2.4858)	UNS N08825	AMS 5542	NCF 825				INCOLOY 825
CoCr20W15Ni(Wr.Nr 2.4964)	UNS R30605	AMS 5759				B50A460	L-605
NiCu30Fe (W.Nr.2.4360)	UNS N04400	AMS 4730	QA 400				MONEL 400
NiCu30Al (W.Nr. 2.4375)	UNS N05500	AMS 4676					MONEL K500
NiCr20TiAl (W.Nr. 2.4952)	UNS N07080			DGTLV-852005002/DGTLV-852021001			NIMONIC 80A
NiCr20Co18Ti (W.Nr.2.4632)	UNS N07090	AMS 5829		DGTLV-852531001			NIMONIC 90
Not Applicable	Not Applicable			15106FD-FF			REFRACTALOY 26
NiCr19CoMo (Wr.Nr. 2.4973)	UNS N07041	AMS 5712/AMS 5713					RENE 41
NiCr20Co13Mo4Ti3Al (W.Nr. 2.4654)	UNS N07001	AMS 5706/AMS 5708					WASPALLOY 25
NO EQUIVALENT	UNS S21800	AMS 5848					NITRONIC 60
X2NiCrMoCu25-20-5 (W.Nr.1.4539)	UNS N08904						ALLOY 904L