

STAINLESS STEEL Austenitic Grade_Free Machining

DEK Reference ID:									
DSM 1.2.1									
Material Name EN:									
1.4305									
Steel Group:									
Alloy special steels: Stainless steels with >= 2,5 % Ni, without Mo, Nb and Ti									
Characteristics:									
Machinable, suitable for cold forming, resistant to corrosion, suitable for polishing, suitable for cold upsetting, austenitic									
Chemical Composition (subset C, Si, Mn, Cr, Ni):									
C (%) - Min	C (%) - Max	Si (%) - Min	Si(%) - Max	Mn (%) - Min	Mn(%) - Max	Cr (%) - Min	Cr (%) - Max	Ni (%) - Min	Ni(%) - Max
0	0.1	0	1	0	2	17	19	8	10
Properties:									
Density (g/cm3)	Young's modulus (GPA)		Yield Stress YS Min MPa	Yield Stress YS Max MPa	Tensile Strength TS Min MPA	Tensile Strength TS Max MPA		Elongation A (%)	
7.92	194		190	-	500	750		35	
Material Safety Data Sheet:									
 Material Safety Data Sheet For 1.4305									
Approved Standards:									
Material Number	Country	Steel Name	Product				Standard's Name		Edition
1.4305	EU	X8CrNiS18-9	stainless steel, list				DIN EN 10088-1		2014
1.4305	EU	X8CrNiS18-9	strip and sheet / plate				DIN EN 10088-2		2014
1.4305	EU	X8CrNiS18-9	bar, rod, section, general				DIN EN 10088-3		2014
1.4305	EU	X8CrNiS18-9	bar, rod, section for constr. purposes				DIN EN 10088-5		2009
1.4305	EU	X8CrNiS18-9	hollow bar for machining, stainless				DIN EN 10294-2		2012
1.4305	EU	X8CrNiS18-9	tube, seamless				DIN EN 10297-2		2006
1.4305	ISO	X10CrNiS18-9	bright product				ISO 683-18		2014
1.4305	ISO	N	stainless steel for surgical instruments				ISO 7153-1		2016
1.4305	ISO	X10CrNiS18-9	steel, stainless				ISO 15510		2014
1.4305	ISO	X10CrNiS18-9	semi-finished product, bar, rod, section				ISO 16143-2		2014
1.4305	CN	Y12Cr18Ni9	bar, stainless				GB/T 1220		2007
1.4305	CN	Y12Cr18Ni9	bar, cold finished				GB/T 4226		2009
1.4305	CN	Y12Cr18Ni9	steel, stainless and heat resisting				GB/T 20878		2007
1.4305	JP	SUS303	bar, stainless				JIS G 4303		2017

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Approved Standards:					
Material Number	Country	Steel Name	Product	Standard's Name	Edition
1.4305	JP	SUS303	sheet / plate and strip, hot rolled, stainless	JIS G 4304	2012
1.4305	JP	SUS303	bar, stainless	JIS G 4318	2020
1.4305	US	Type 303	billet and bar for forging	ASTM A314	2019
1.4305	US	Type 303	forging, stainless	ASTM A473	2019
1.4305	US	Grade MT303	tube, seamless, stainless	ASTM A511/ M	2020
1.4305	US	Type 303	bar, stainless	ASTM A582/ M	2012
1.4305	US	Type 303	plate / sheet and strip, stainless	ASTM A895	1989
1.4305	US	Type 303	chromium steel, austenitic	ASTM A959	2019
1.4305	US	Type 303	steel, stainless, austenitic	ASTM F 899	2020
1.4305	EU	X2CrNi19-11	forging	DIN EN 2466	2009
1.4305	EU	X2CrNi19-11	flat product	DIN EN 10028-7	2016
1.4305	EU	X2CrNi19-11	stainless steel, list	DIN EN 10088-1	2014
1.4305	EU	X2CrNi19-11	strip and sheet / plate	DIN EN 10088-2	2014
1.4305	EU	X2CrNi19-11	bar, rod, section, general	DIN EN 10088-3	2014
1.4305	EU	X2CrNi19-11	sheet/plate and strip f. constr. purposes	DIN EN 10088-4	2010
1.4305	EU	X2CrNi19-11	bar, rod, section for constr. purposes	DIN EN 10088-5	2009
1.4305	EU	X2CrNi19-11	tube, seamless	DIN EN 10216-5	2014
1.4305	EU	X2CrNi19-11	tube, welded	DIN EN 10217-7	2015
1.4305	EU	X2CrNi19-11	open die forging	DIN EN 10250-4	2000
1.4305	EU	X2CrNi19-11	rod, bar and wire	DIN EN 10263-5	2018
1.4305	EU	X2CrNi19-11	bar	DIN EN 10272	2016
1.4305	EU	X2CrNi19-11	hollow bar for machining, stainless	DIN EN 10294-2	2012
1.4305	EU	X2CrNi19-11	tube, welded	DIN EN 10296-2	2006
1.4305	EU	X2CrNi19-11	tube, seamless	DIN EN 10297-2	2006
1.4305	EU	X2CrNi19-11	tube, welded	DIN EN 10312	2005
1.4305	ISO	X2CrNi19-11	bright product	ISO 683-18	2014
1.4305	ISO	X2CrNi18-10E	cold heading steel	ISO 4954	2018
1.4305	ISO	X2CrNi18-10	steel forging, rolled bars, stainless	ISO 9327-5	1999
1.4305	ISO	X2CrNi19-11	flat product	ISO 9328-7	2018
1.4305	ISO	X2CrNi18-10	tube, welded	ISO 9330-6	1997
1.4305	ISO	GX2CrNi18-10	steel casting for general application	ISO 11972	2015
1.4305	ISO	X2CrNi19-11	steel, stainless	ISO 15510	2014
1.4305	ISO	X2CrNi19-11	flat product, stainless	ISO 16143-1	2014
1.4305	ISO	X2CrNi19-11	semi-finished product, bar, rod, section	ISO 16143-2	2014
1.4305	CN	022Cr19Ni10	bar, stainless	GB/T 1220	2007
1.4305	CN	ZG03Cr18Ni10	steel casting, corrosion resistant	GB/T 2100	2017
1.4305	CN	022Cr19Ni10	tube, seamless, thin wall thickness	GB/T 3089	2020
1.4305	CN	00Cr19Ni10	tube, stainless, small diameter	GB/T 3090	2020

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1.4305	CN	022Cr19Ni10	sheet and strip, cold rolled, stainless	GB/T 3280	2015
1.4305	CN	022Cr19Ni10	bar, cold finished	GB/T 4226	2009
1.4305	CN	022Cr19Ni10	sheet and strip, hot rolled, stainless	GB/T 4237	2015
1.4305	CN	00Cr19Ni10	tube, welded, stainless	GB/T 12770	2012
1.4305	CN	022Cr19Ni10	tube, welded, stainless	GB/T 12771	2019
1.4305	CN	00Cr19Ni10	tube, tube for boiler, seamless	GB/T 13296	2013
1.4305	CN	00Cr19Ni10	tube, seamless, stainless	GB/T 14975	2012
1.4305	CN	00Cr19Ni10	tube, seamless, stainless	GB/T 14976	2012
1.4305	CN	022Cr19Ni10	steel, stainless and heat resisting	GB/T 20878	2007
1.4305	CN	022Cr19Ni10	strip for pipes, cold rolled, stainless	GB/T 21074	2007
1.4305	CN	022Cr19Ni10	plate and strip, stainless	GB/T 24511	2017
1.4305	JP	SUS F 304L	forging, stainless	JIS G 3214	2018
1.4305	JP	SUS304LTBS	pipe, sanitary pipe, stainless	JIS G 3447	2015
1.4305	JP	SUS304LTP	tube, stainless, for ordinary piping	JIS G 3459	2016
1.4305	JP	SUS304LTB	tube, tube for boiler, stainless	JIS G 3463	2019
1.4305	JP	SUS304LTPY	pipe, welded, large diameter, stainless	JIS G 3468	2016
1.4305	JP	SUS304L	bar, stainless	JIS G 4303	2017
1.4305	JP	SUS304L	sheet / plate and strip, hot rolled, stainless	JIS G 4304	2012
1.4305	JP	SUS304L	sheet/plate and strip, cold rolled, stainless	JIS G 4305	2012
1.4305	JP	SUS304L	sections, hot formed	JIS G 4317	2018
1.4305	JP	SUS304L	bar, stainless	JIS G 4318	2020
1.4305	JP	SUS304LFB	bloom and billet for forging, stainless	JIS G 4319	2017
1.4305	JP	SCS 19	steel casting, corrosion resistant	JIS G 5121	2018
1.4305	JP	SCS 19A	steel casting, corrosion resistant	JIS G 5121	2018
1.4305	US	Grade F 304L	flange, fitting, valve, forged or rolled	ASTM A182/ M	2020
1.4305	US	Grade TP304L	tube, seamless	ASTM A213/ M	2019
1.4305	US	Type 304L	plate / sheet and strip, stainless	ASTM A240/ M	2020
1.4305	US	Grade TP304L	tube, welded, austenitic steel	ASTM A249/ M	2018
1.4305	US	Grade TP304L	tubing, seamless and welded	ASTM A269/ M	2015
1.4305	US	Grade TP304L	tube, seamless and welded for sanitary	ASTM A270/ M	2015
1.4305	US	Type 304L	bar and shape, stainless	ASTM A276/ M	2017
1.4305	US	Grade TP304L	pipe, seamless and welded	ASTM A312/ M	2019
1.4305	US	Type 304L	billet and bar for forging	ASTM A314	2019
1.4305	US	Type 304L	pipe, electric fusion welded	ASTM A358/ M	2019
1.4305	US	Grade CF3	casting for pressure containing parts	ASTM A351/ M	2018

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Material Number	Country	Steel Name	Product	Standard's Name	Edition
1.4305	US	Grade CF3A	casting for pressure containing parts	ASTM A351/ M	2018
1.4305	US	Grade CR304L	fitting of wrought steel, stainless	ASTM A403/ M	2020
1.4305	US	Grade WP304L	fitting of wrought steel, stainless	ASTM A403/ M	2020
1.4305	US	Grade TP304L	pipe, large diameter, welded	ASTM A409/ M	2019
1.4305	US	Grade CPF3	centrifugal casting, austenitic	ASTM A451/ M	2020
1.4305	US	Grade CPF3A	centrifugal casting, austenitic	ASTM A451/ M	2020
1.4305	US	Type 304L	forging, stainless	ASTM A473	2019
1.4305	US	Type 304L	bar and shape, stainless	ASTM A479/ M	2020
1.4305	US	Grade MT304L	tube, seamless, stainless	ASTM A511/ M	2020
1.4305	US	Grade MT-304L	tube, welded, stainless	ASTM A554	2016
1.4305	US	Grade TP304L	tube, seamless a. welded, small diameter	ASTM A632	2019
1.4305	US	Type 304L	plate / sheet, strip, flat bar, stainless	ASTM A666	2015
1.4305	US	Grade TP304L	tube, seamless and welded, feedwater heater	ASTM A688/ M	2018
1.4305	US	Grade CF3	casting, corrosion resistant	ASTM A743/ M	2019
1.4305	US	Grade CF3	casting, corrosion resistant	ASTM A744/ M	2020
1.4305	US	Grade TP304L	fitting, stainless	ASTM A774/ M	2019
1.4305	US	Grade TP304L	tubular product, welded	ASTM A778/ M	2016
1.4305	US	Type 304L	plate, floor plate, stainless	ASTM A793	2014
1.4305	US	Grade TP304L	pipe, single or double-welded	ASTM A813/ M	2019
1.4305	US	Grade TP304L	pipe, welded	ASTM A814/ M	2019
1.4305	US	Grade TP304L	pipe, seamless, stainless	ASTM A943/ M	2019
1.4305	US	Type 304L	chromium steel, austenitic	ASTM A959	2019
1.4305	US	Grade F304L	forging	ASTM A965/ M	2020
1.4305	US	UNS: S30403	flange, fitting, valve, stainless	ASTM A988/ M	2017
1.4305	US	AISI 304L	wrought steel, stainless	SAE J 405	2018

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