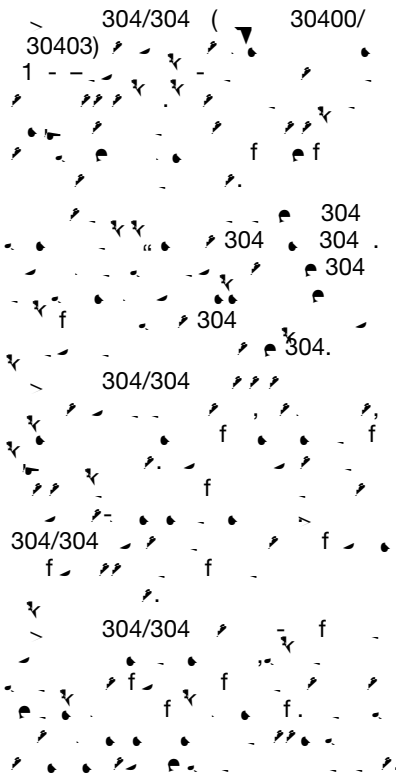


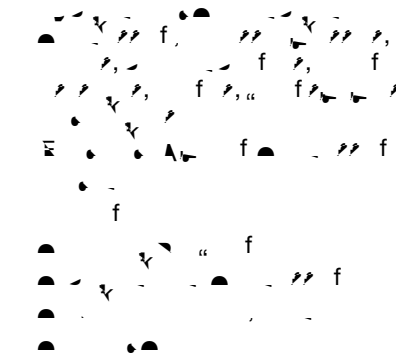
Specification Sheet: Alloy 304/304L

(UNS S30400, S30403) W. Nr. 1.4301, 1.4307

Most Widely Used Austenitic Stainless Steel, a Versatile Corrosion Resistant Alloy for General Purpose Applications



Applications



Standards

ASTM 240
 ASME 240
 AMS 5511/5513
 QQ-S 766

Chemical Analysis

Weight % (all values are maximum unless a range is otherwise indicated)

Physical Properties

Density 0.25 / 3 7.0 f / 3	Specific Heat 0.12 / (32-212) 500 l / f (0-100)
Modulus of Elasticity 2.0 10 ⁶ 200	Thermal Conductivity 212°F (100°C) .4 / 26 / 16.3 /
Melting Range 2550-2505 13-1421	Electrical Resistivity 2.1 - 6 74 - 20

Mean Coefficient of Thermal Expansion

Temperature Range			
°F	°C	in/in/°F	cm/cm °C
6-212	20-100	.2 10 ⁻⁶	16.6 10 ⁻⁶
6-32	20-500	10.6 10 ⁻⁶	1.2 10 ⁻⁶
6-1600	20-70	11.0 10 ⁻⁶	1. 10 ⁻⁶

Mechanical Properties

	ASTM		
	Typical*	Type 304	Type 304L
0.2% $\sigma_{0.2}$	42	30	25
$\sigma_{0.01}$	7	75	70
$\sigma_{0.001}$	5	40	40
$\sigma_{0.0001}$	70		
$\sigma_{0.00001}$	2	2	2

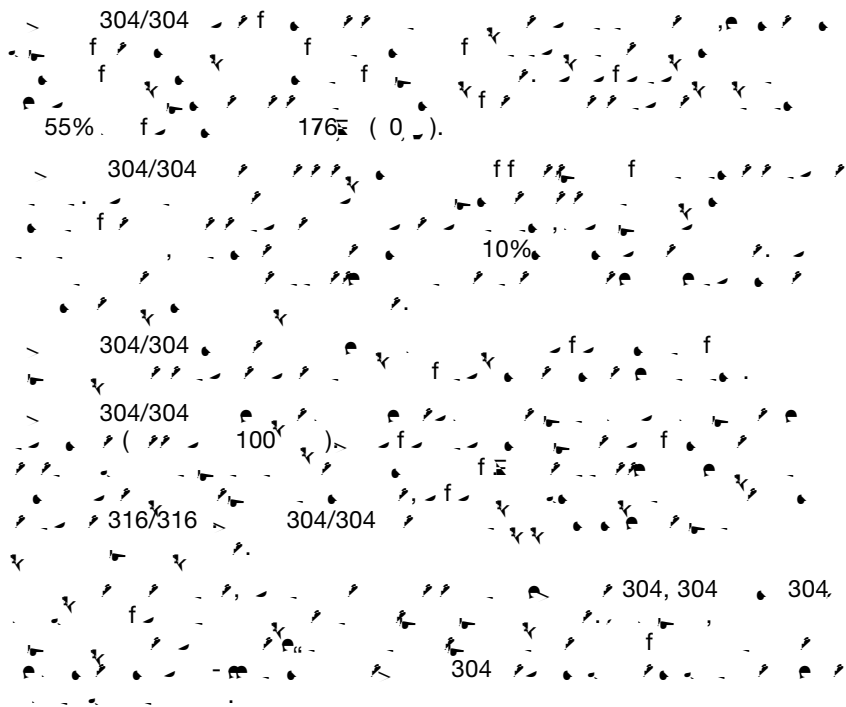
*0.375 inch plate



SANDMEYER STEEL COMPANY

1 116-35
 00-523-3663 +1-215-464-7100 +1-215-677-1430

Corrosion Resistance



Lowest Temperature (°F) at Which the Corrosion Rate Exceeds 5 mpy

0.2%	f	f	f	f
1%	6	6	15	f
10%	.	122	140	167
60%	.	54	5	57
6%	.	113	77	6
5%	176	203	14	203
10%	f	f	f	f
65%	212	212	221	230
0%	212	f	f	f
50%	≤50	104	14	14
50%	15	14	14	230
3%	113	14	122	140
2%	.	.	.	.
60%	140	140	140	140
2%	.	.	.	.
50%	f	24	212	230
50%	.	.	.	.
1%	6	77	113	203
0.3%	.	.	.	.
10%	.	77	5	122
2000	.	.	.	.
10%	.	5	5	104
2000	.	.	.	.
1,	50	≤50	113	203
2,	50	≤50	140	.

ps = pitting can occur

ps = pitting/crevice corrosion can occur

Fabrication Data

304/304

Hot Forming
 1652 r 2102 (750 r 1150)
 1 00 (103)

Cold Forming

Welding
 304/304

Machining
 304/304

Tool		Lubrication		CONDITIONS			
		6	.23	0.5	.01	13 r 1	42.6 r 5
		3	.11	0.4	.016	20 r 25	65.6 r 2
		1	.04	0.2	.00	26 r 31	5.3 r 101.7
		6	.23	0.5	.01	75 r	5.3 r 6

.23 5.3 5.3 .00 266 .23 1 .04



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