

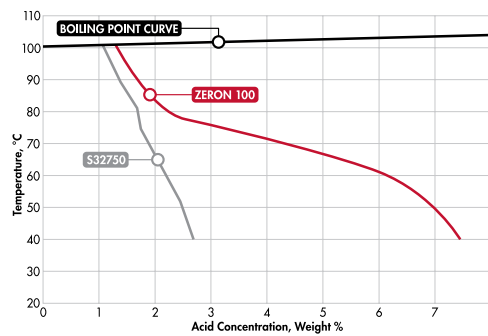
Chemical Composition, %

	Cr	Ni	Mo	N	Cu	W	Fe	PRE _N *
ZERON® 100 UNS S32760	25.0	7.0	3.6	0.22	0.7	0.7	balance	41.5
2507 UNS S32750	25.0	7.0	3.8	0.27	—	—	balance	41.9
F255 UNS S32550	25.5	5.5	3.4	0.175	2.0	—	balance	39.5

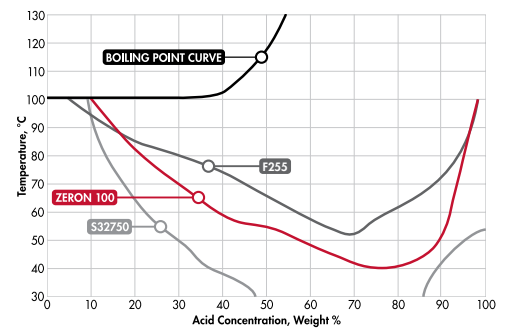
*PRE_N = CR + 3.3(Mo + 0.5 W) + (16N)

Iso-corrosion Curves

Iso-corrosion curves 0.004 ipy (0.1 mm/y) for some stainless steels in Hydrochloric Acid



Iso-corrosion curves 0.004 ipy (0.1 mm/y) for some stainless steels in Sulfuric Acid



Minimum Tensile Properties

		Plate	Sheet	Round Bar	Forgings	Butt Weld Fittings
ZERON 100	Ultimate Tensile Strength, ksi	109	109	109	109	109
	0.2% Offset Yield Strength, ksi	80	80	80	80	80
2507	Ultimate Tensile Strength, ksi	116	116	116 (110)	116 (106)	116
	0.2% Offset Yield Strength, ksi	80	80	80 (75)	80 (75)	80
F255	Ultimate Tensile Strength, ksi	110	110	110	110	110
	0.2% Offset Yield Strength, ksi	80	80	80	80	80

2507 values in parenthesis for 2" thick cross-sections and above

ASME Section VIII Div 1 Maximum Design Allowable Stresses

Temperature	°F	100	200	300	400	500	600
ZERON 100	ksi	31.1	31.0	29.4	29.0	29.0	29.0
2507	ksi	33.0	33.0	31.2	30.1	29.6	29.4
F255	ksi	31.4	31.3	29.5	28.6	28.2	—

ZERON 100 Code Case 2245-1

ASME 31.1 Basic Allowable Stresses

Temperature	°F	100	200	300	400	500	600
ZERON 100	ksi	36.3	35.9	34.4	34.0	34.0	34.0
2507	ksi	38.7	35.0	33.1	31.9	31.4	31.2

Material Testing

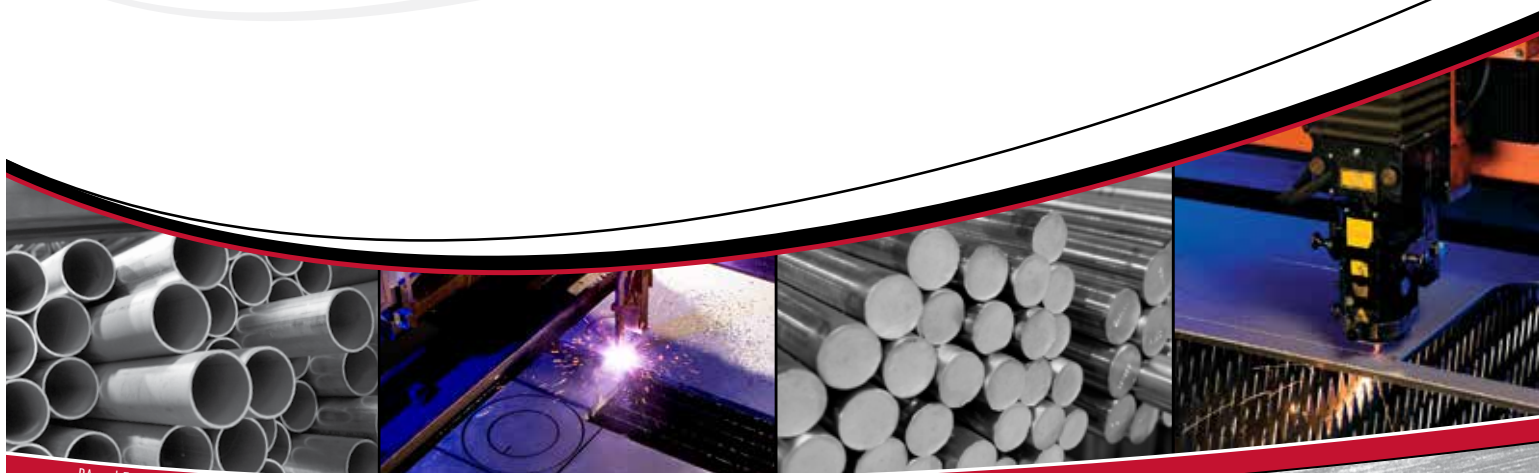
Pitting Corrosion Test - Minimum Acceptance Criteria

	Test Temperature	Test Method
ZERON 100	122°F	ASTM G48A
2507	104°F	ASTM A923 Practice C
F255	122°F	ASTM G48A

Charpy V-Notch Impact Test

	Test Temperature	Minimum Accepted Values
ZERON 100	-58°F	70J Average / 65J Single
2507	-40°F	Not Specified
F255	-46°C	Not Specified

ZERON 100 testing for plate to MDS 12804/4. 2507 acceptance criteria for plate ASTM A923.



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