

HASTELLOY[®] N alloy

Tensile Data

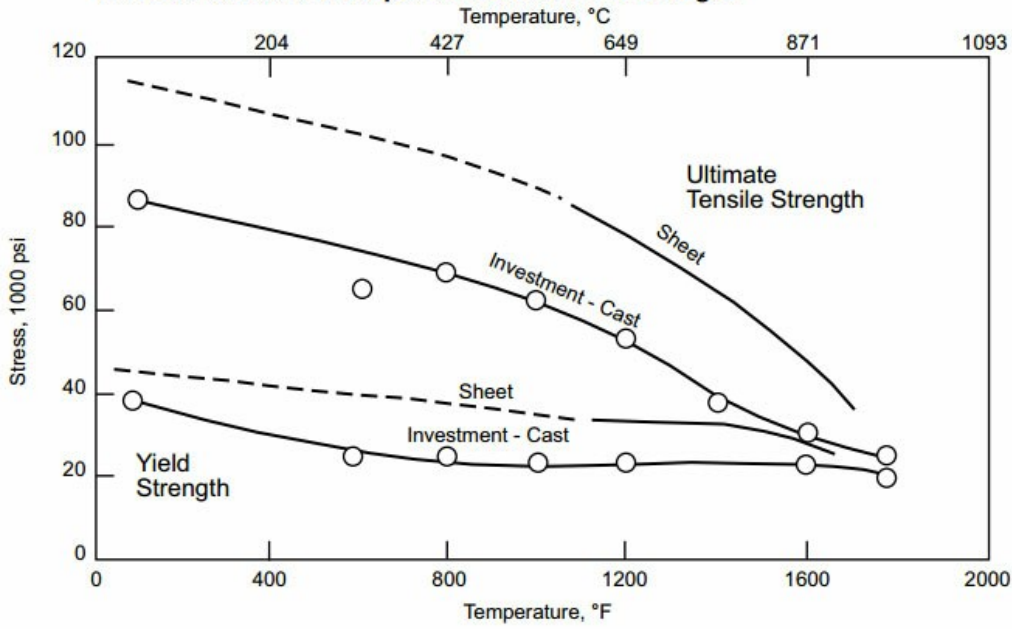
Short-Time Tensile Data

Form	Condition	Aging			Test Temperature		0.2% Offset Yield Strength		Ultimate Tensile Strength		Elongation	
		°F	°C	Time, h	°F	°C	ksi	MPa	ksi	MPa		%
Sheet 0.063 in. thick	Heat-treated for at 2150°F (1177°C), RAC	-	-	-	RT	RT	45.5	314	115.1	794	50.7	
		-	-	-	1100	593	32.9	227	86.9	599	45.3	
		-	-	-	1300	706	31.6	218	69.6	480	30.0	
		-	-	-	1500	816	29.5	203	55.9	385	24.3	
		-	-	-	1700	927	25.9	179	34.0	234	30.0	
	Aged	1500	816	128	RT	RT	49.3	340	115.4	796	46.8	
	Heat-treated at 2150°F (1177°C), then welded and tested as-welded	-	-	-	RT	RT	-	-	116.1	800	37.5	
		-	-	-	1200	649	-	-	71.5	493	17.0	
		-	-	-	1300	704	-	-	63.5	438	10.5	
		-	-	-	1500	816	-	-	52.0	359	8.5	
Sheet 0.045 in. thick	Heat-treated at 2150°F (1177°C), then welded and tested as-welded, RAC	-	-	-	RT	RT	44.7	308	114.4	789	50.0	
		-	-	-	1000	538	28.3	195	93.0	641	46.0	
		-	-	-	1100	593	28.9	199	93.0	641	50.0	
		-	-	-	1200	648	27.5	190	82.4	568	37.0	
		-	-	-	1300	704	28.0	193	69.9	482	24.0	
	Aged	-	-	-	1400	760	26.2	181	61.8	426	21.0	
		1000	538	10,000	RT	RT	45.1	311	117.7	812	50.0	
		1100	593	10,000	RT	RT	47.5	328	120.0	827	49.0	
		1200	648	10,000	RT	RT	46.8	323	116.0	800	46.0	
		1300	704	10,000	RT	RT	45.8	316	115.5	796	46.0	
		1400	760	10,000	RT	RT	43.6	301	115.0	793	40.0	
		1000	538	10,000	1000	538	-	-	97.7	674	46.0	
		1100	593	10,000	1100	593	-	-	90.5	624	40.0	
		1200	648	10,000	1200	649	-	-	81.9	565	32.0	
	1300	704	10,000	1300	704	-	-	76.1	525	24.0		
	1400	760	10,000	1400	760	-	-	65.1	449	20.0		
	Weld Metal	As Welded	-	-	-	RT	RT	-	-	116.1	800	39.3*
			-	-	-	1200	649	-	-	73.6	507	18.1*
Aged		1200	648	500	RT	RT	-	-	116.8	805	38.6*	
		1200	648	500	1200	649	-	-	82.7	570	26.5*	

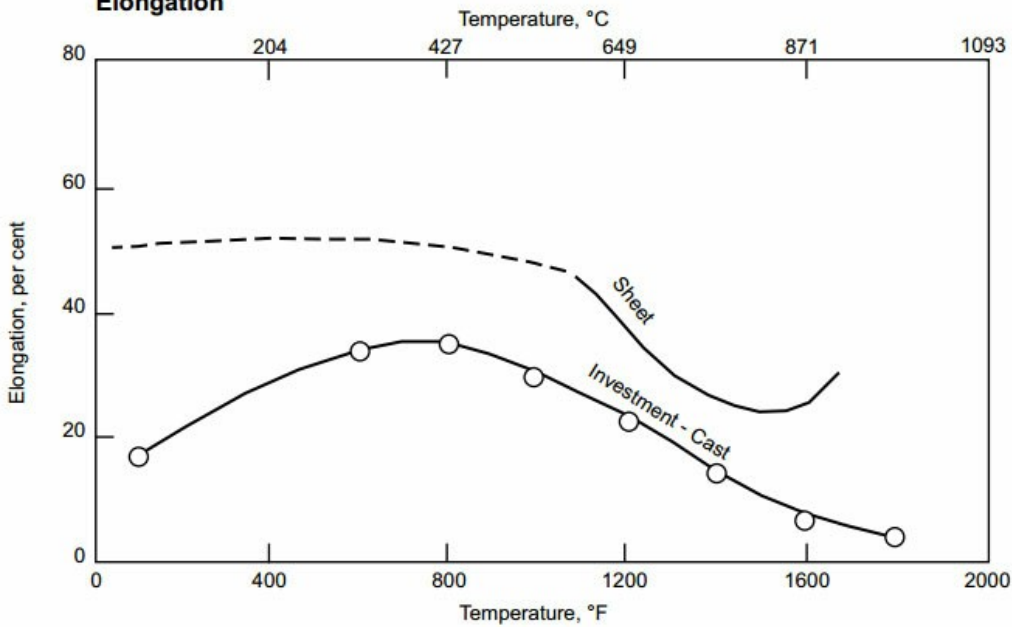
*Elongation in one inch

RT= Room Temperature

Ultimate Tensile and 0.2 per cent Offset Yield Strength



Elongation



Sheet-0.063 inch thick, heat-treated at 2150°F (1177°C), RAC

Investment-Cast - 0.250 inch bars, heat-treated at 2150°F (1177°C) for 30 minutes, RAC