

HAYNES[®] 617 alloy

Thermal Stability

Room-Temperature Properties of Plate After Thermal Exposure

Condition	0.2% Yield Strength		Ultimate Tensile Strength		4D Elongation	Reduction of Area	Impact Strength	
	ksi	MPa	ksi	MPa	%	%	ft.-lbs.	J
Solution Annealed	50.2	346	116.3	802	56.3	50.9	186.5*	253*
+ 1200°F (649°C)/ 1,000 hr.	83.3	574	145.9	1006	37.6	40.0	53.5	73
+ 1200°F (649°C)/ 4,000 hr.	88.5	610	152.4	1051	34.4	36.4	53.4	72
+ 1200°F (649°C)/ 8,000 hr.	90.4	623	152.8	1054	34.3	36.6	51.5	70
+ 1400°F (760°C)/ 1,000 hr	71.6	494	138.7	956	39.7	45.2	57.0	77
+ 1400°F (760°C)/ 4,000 hr	67.9	468	136.5	941	38.6	41.2	51.3	70
+ 1400°F (760°C)/ 8,000 hr	64.5	445	136.0	938	37.1	36.9	35.5	48
+ 1400°F (760°C)/ 1,000 hr.	50.7	350	121.2	836	49.9	51.7	90.0	122
+ 1600°F (871°C)/ 4,000 hr.	49.7	343	119.7	825	48.0	51.3	80.6	109
+ 1600°F (871°C)/ 8,000 hr.	47.6	328	118.8	819	49.8	50.5	67.0	91

*Did not break