

HAYNES[®] R-41 alloy

Tensile Data

**Tensile properties after heat treating at
2050°F (1121°C) /30 min./RAC + 1650°F (899°C) /4h/AC**

Test Temperature		0.2% Yield Strength		Ultimate Tensile Strength		4D Elongation
°F	°C	ksi	MPa	ksi	MPa	%
RT	RT	116.4	803	181.8	1253	20.5
400	204	109*	752*	174.2*	1201*	16.5*
800	427	109.1*	752*	161.6*	1114*	20.3*
1000	538	107.2	739	161	1110	21.2
1200	649	107.7	743	172.9	1192	19.3
1400	760	114.3	788	139.1	959	28.3
1500	816	104*	717*	115.7*	798*	27.2*
1600	871	79.7	550	89.2	615	28.5
1700	927	59.1*	407*	66.9*	461*	24.8*
1800	982	34.2	236	40.2	277	31.1
2000	1093	4.9*	34*	8.5*	59*	94.4*

*Limited data

Tensile properties after heat treating at 1400°F (760°C) /16h/AC

Test Temperature		0.2% Yield Strength		Ultimate Tensile Strength		4D Elongation
°F	°C	ksi	MPa	ksi	MPa	%
RT	RT	154.3	1064	205.4	1416	22.3
400	204	141.2*	974*	198.2*	1367*	23.0*
800	427	141.8*	978*	181.6*	1252*	25.6*
1000	538	139.8	964	182.6	1259	20.5
1200	649	138.3	954	196.2	1353	23.4
1400	760	126.1	869	150.8	1040	17.9
1500	816	112.2	774	128.1	883	19.4
1600	871	83.9	578	98.5	679	31.4
1700	927	51.1	352	62.3	430	38.7
1800	982	25.9	179	34.5	238	42.7

*Limited data