

# HAYNES<sup>®</sup> 263 alloy

## Creep and Stress-Rupture Strength

### HAYNES<sup>®</sup> 263 Alloy Sheet, Age-Hardened\*

Temperature		Creep	Approximate Initial Stress to Produce Specified Creep in			
°F	°C		100h		1,000h	
		%	ksi	MPa	ksi	MPa
1200	649	1	75	517	58	400
		R	77	531	64	441
1300	704	1	54	372	41	283
		R	60	414	45	310
1400	760	1	37	255	25	172
		R	42	290	28	193
1500	816	1	22	152	12	83
		R	25	172	15	103
1600	871	1	11	76	6.0	41
		R	14	97	7.4	51
1700	927	1	5.7	39	3.0	21
		R	7.3	50	4.0	28

\*Samples were age hardened by treating at 1472°F (850°C)/8h/AC

### Comparison of Stress to Produce 1% Creep in 1000 Hours in Sheet

At temperatures of 1200°F (649°C) and above, HAYNES<sup>®</sup> 263 alloy has creep strength less than those of two other gamma-prime strengthened alloys, HAYNES<sup>®</sup> 282<sup>®</sup> alloy and HAYNES<sup>®</sup> Waspaloy alloy. At temperatures greater than 1300°F (704°C), HAYNES<sup>®</sup> 263 has a creep strength far superior to that of HAYNES<sup>®</sup> 718 alloy.

