

HAYNES[®] HR-120[®] alloy

Creep-rupture Data

HR-120[®] Plate, Solution-annealed

Temperature		Creep	Approximate Initial Stress to Produce Specified Creep in:							
			10h		100h		1,000h		10,000h	
°F	°C	%	ksi	MPa	ksi	MPa	ksi	MPa	ksi	MPa
1200	649	0.5	-	-	-	-	23.0	159	-	-
		1	-	-	-	-	26.5	183	-	-
		R	68	469	54	372	35	241	23.0	159
1300	704	0.5	-	-	20.3	140	14.0	97	-	-
		1	-	-	23.5	162	15.9	110	-	-
		R	45	310	32	221	21.7	150	15.0	103
1400	760	0.5	19.3	133	14.5	100	10.8	74	8.0	55
		1	22.2	153	15.8	109	12.3	85	9.5	66
		R	30	207	21.5	148	15.3	105	11.0	76
1500	816	0.5	13.8	95	10.5	72	8	55	5.7	39
		1	15.3	105	11.4	79	8.4	58	6.2	43
		R	21.8	150	15.3	105	11.0	76	7.8	54
1600	871	0.5	10.5	72	8.4	58	6.1	42	4.1	28
		1	11.4	79	9.1	63	6.5	45	4.4	30
		R	14.0	97	10.8	74	7.7	53	5.0	34
1700	927	0.5	8.0	55	6.0	41	3.9	27	2.4	17
		1	8.5	59	6.7	46	4.4	30	2.7	19
		R	11.2	77	7.8	54	5.1	35	3.1	21
1800	982	0.5	5.8	40	3.7	26	2.1	14	1.1	7.6
		1	6.2	43	4.4	30	2.5	17	1.3	9.0
		R	7.9	54	5.1	35	3.1	21	1.8	12
1900	1038	0.5	4.0	28	2.3	16	1.1	7.6	-	-
		1	4.7	32	2.5	17	1.2	8.3	0.60	4.1
		R	5.5	38	3.3	23	1.8	12	0.97	6.7
2000	1093	0.5	1.8	12	0.90	6.2	-	-	-	-
		1	-	-	1.1	7.6	-	-	-	-
		R	-	-	2.0	14	1.1	7.6	0.60	4.1
2100	1149	0.5	0.60	4.1	0.30	2.1	-	-	-	-
		1	-	-	0.42	2.9	-	-	-	-
		R	-	-	1.2	8.3	0.60	4.1	0.30	2.1

HR-120[®] Sheet, Solution-annealed, Limited Data

Temperature	Creep	Approximate Initial Stress to Produce Specified Creep in:	
		100 h	1,000 h

°F	°C	%	ksi	MPa	ksi	MPa
1400	760	1	14.6	101	10.4	72
		R	21.6	149	14.4	99
1500	816	1	11.5	79	8.8	61
		R	14.9	103	10.4	72
1600	871	1	8.2	57	6.6	46
		R	10.3	71	7.2	50
1700	927	1	6.0	41	4.2	29
		R	7.0	48	4.3	30
1800	982	1	3.3	23	2.4	17
		R	4.4	30	2.7	19