

HAYNES[®] HR-160[®] alloy

Aqueous Corrosion Resistance

Stress Corrosion Cracking

Alloy	Time to Failure, h	
	HR-160[®]	1000
C-22[®]	1000	No Cracking
825	150	Cracked
316L SS	24	Cracked

Uniform Corrosion

-	Average Corrosion Rate, mm/y*		
	HR-160[®]	625	316L SS
3% HCl + 59% HNO ₃ , 80°C	2	20	-
1% HF + 20% HNO ₃ , 80°C	35	123	>400
50% H ₂ SO ₄ + 10% HNO ₃ , Boiling	20	-	-
60% H ₂ SO ₄ + 5% HNO ₃ , Boiling	50	105	-
65% HNO ₃ , Boiling	9	20	12
50% H ₂ SO ₄ + 42 g/l Fe ₂ (SO ₄) ₃ G-28A, Boiling	9	24	38
25% H ₂ SO ₄ + 5% HNO ₃ + 4% NaCl, Boiling	3	713	-
1% HCl, Boiling	469	0.9	524
1% HCl + 1% H ₂ SO ₄ + 1% HF, 79°C	107	120	245

*To convert mils per year (mpy) to mm per year, divide by 40.