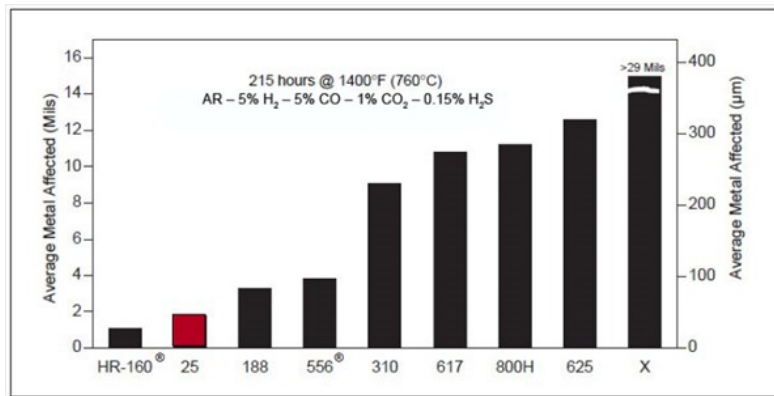


HAYNES[®] 25 alloy

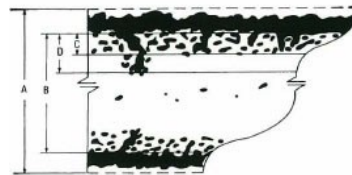
Sulfidation Resistance

Sulfidation Resistance at 1400°F (760°C)

HAYNES[®] 25 alloy has very good resistance to gaseous sulfidation environments encountered in various industrial applications. Tests were conducted at 1400°F (760°C) in a gas mixture consisting of AR – 5% H₂ – 5% CO – 1% CO₂ – 0.15% H₂S, balance Ar. Coupons were exposed for 215 hours. This is a severe test, with equilibrium sulfur partial pressure of 10⁻⁶ to 10⁻⁷ and oxygen partial pressures less than that needed to produce protective chromium oxide scales.



Schematic Representation of Metallographic Technique Used for Evaluating Environmental Tests



1. Metal Loss = (A - B)/2
2. Average Internal Penetration = C
3. Maximum Internal Penetration = D
4. Average Metal Affected = ((A - B)/2) + C
5. Maximum Metal Affected = ((A - B)/2) + D

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