

HASTELLOY® X alloy

Carburization Resistance

Tests were performed in a carburizing environment with an inlet gas mixture (volume %) of 5.0% H₂, 5.0% CO, 5.0% CH₄ and the balance argon. The calculated oxygen potential and carbon activity at 1800°F (980°C) were 9×10^{-22} atm. and 1.0, respectively.

The results are presented in terms of the mass of carbon pickup per unit area, which was obtained from the equation $M = C (W/A)$ where M = the mass of carbon pickup per unit area (mg/cm²), C = difference in carbon (weight fraction) before and after exposure, W = weight of the unexposed specimen (mg) and A = surface area of the specimen exposed to the test environment (cm²).

Comparative Carburization Resistance at 1800°F (980°C) for 55 Hours

