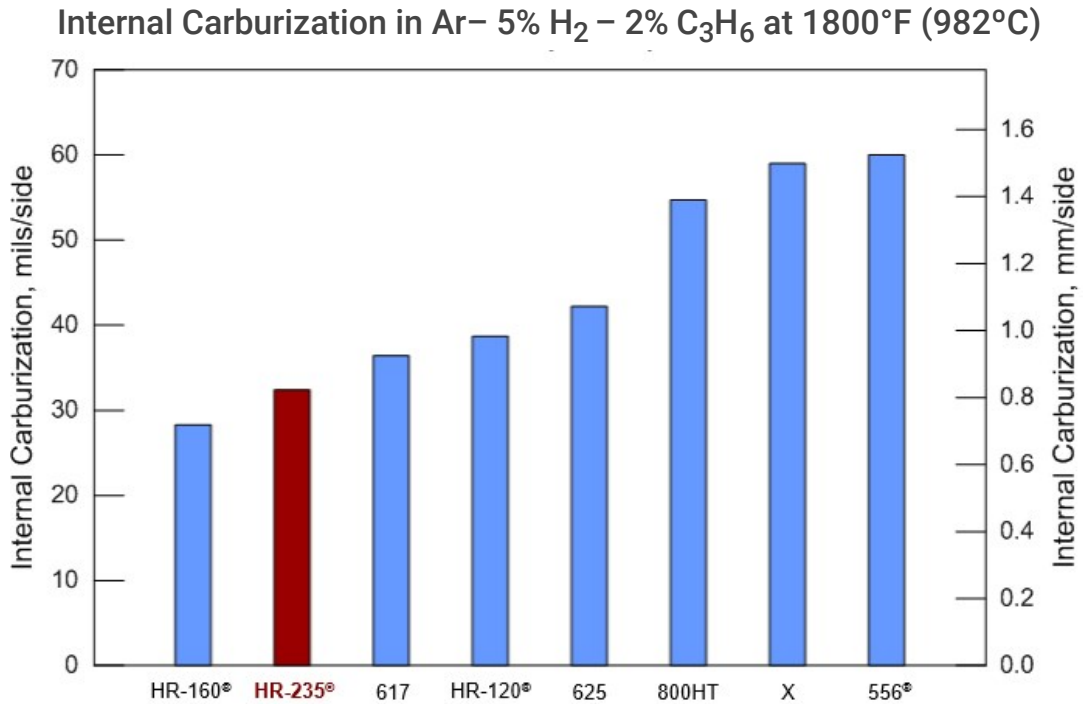


HAYNES[®] HR-235[®] alloy

Carburization Resistance

In addition to its high resistance to metal dusting, HAYNES[®] HR-235[®] alloy also withstands carburization, a degradation process which occurs at lower carbon activities and which negatively affects many metallic materials, as shown in the following chart. The test involved a gas mixture of Ar – 5% H₂ – 2% C₃H₆ at 1800°F (982°C), with a carbon activity of 1; the test duration was 215 h.



The samples for 800HT, X, and 556[®] alloys experienced through thickness carburization, hence the values for these three materials would have been greater, had the samples been thicker.