

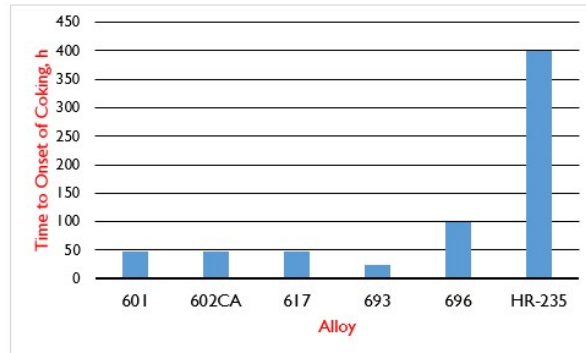
# HAYNES<sup>®</sup> HR-235<sup>®</sup> alloy

## Principal Features

### **A high-chromium, copper-bearing nickel alloy with outstanding resistance to metal dusting**

HAYNES<sup>®</sup> HR-235<sup>®</sup> alloy has excellent resistance to metal dusting in carbonaceous high-temperature environments. Potential uses include applications in petrochemical production and syngas plants. Similar to other nickel-based corrosion resistant alloys, the alloy is readily fabricated and welded. HR-235<sup>®</sup> alloy is being manufactured in several product forms including sheet, plate, pipe, tube, wire, billet and bar. Material will be available for trial evaluation as manufacturing progresses. Please contact Vinay Deodeshmukh at (765) 456-6212 or [vdeodeshmukh@haynesintl.com](mailto:vdeodeshmukh@haynesintl.com) for more information.

### **Time to Onset of Coking (in Accelerated Metal Dusting Tests)**



### **Test Details:**

- The alloys were tested in a flowing gas mixture of 68% CO + 26% H<sub>2</sub> + 6% H<sub>2</sub>O at 680°C ( $a_c = 2.9$ ).
- The total test involved 1,200 cycles, each of one-hour duration (45 min at 680°C + 15 min cooling).
- The values for 696 and HR-235<sup>®</sup> alloy are approximate.