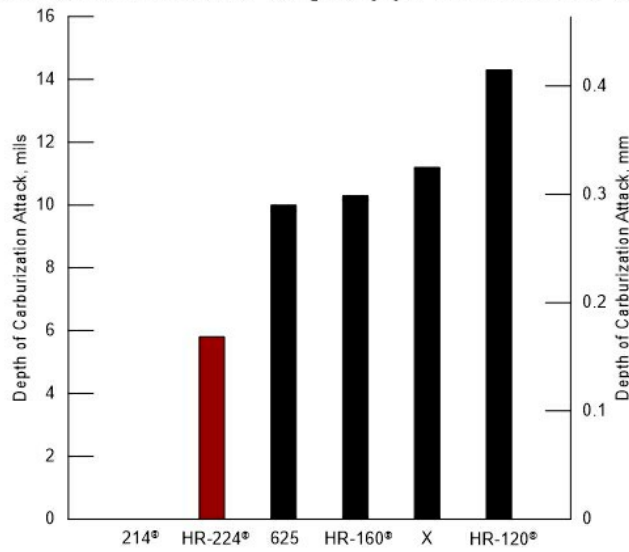


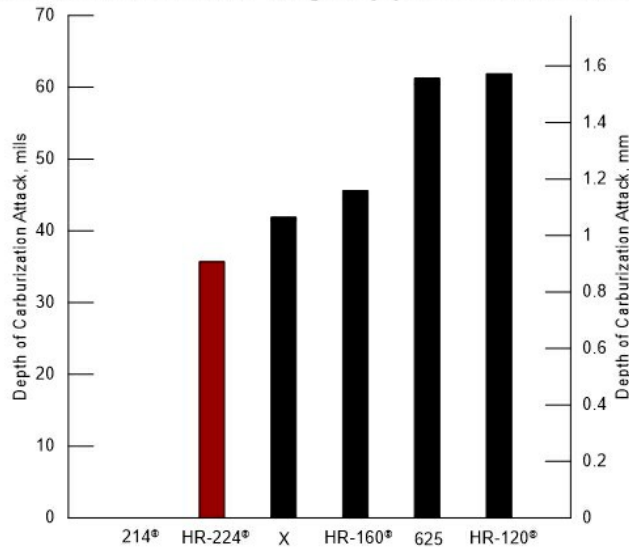
HAYNES[®] HR-224[®] alloy

Carburization Resistance

Depth of Carburization Attack in Ar-5% H_2 -2% C_3H_6 at 1600°F (871°C) for 124 hours



Depth of Carburization Attack in Ar-5% H_2 -2% C_3H_6 at 2000°F (1093°C) for 24 hours



Laboratory Carburization Testing in Ar-5% H_2 -2% C_3H_6 at 1600°F (871°C) for 124 hours

| Alloy | Carbon Absorption | Total Depth of Attack | |
|---------------------|-------------------|-----------------------|------|
| | (mg/cm^2) | mil | mm |
| 214 [®] | 0.4 | 0 | 0 |
| HR-160 [®] | 0.9 | 10.3 | 0.26 |
| HR-224 [®] | 1.4 | 5.8 | 0.15 |
| 625 | 2.6 | 10 | 0.25 |
| X | 3.6 | 11.2 | 0.28 |
| HR-120 [®] | 4 | 14.3 | 0.36 |

Note: Preliminary data from a single test.

Laboratory Carburization Testing in Ar-5% H_2 -2% C_3H_6 at 2000°F (1093°C) for 24 hours

| Alloy | Carbon Absorption | Total Depth of Attack | |
|---------------------|-----------------------|-----------------------|-------|
| | (mg/cm ²) | mil | mm |
| 214 [®] | 0.2 | 0 | 0 |
| HR-224 [®] | 3.7 | 35.7 | 0.9 |
| HR-160 [®] | 7.1 | 45.6 | 1.2 |
| 625 | 8.9 | > 61.3 | > 1.6 |
| X | 11.7 | 41.9 | 1.1 |
| HR-120 [®] | 13.6 | > 61.9 | > 1.6 |

Note: Preliminary data from a single test. 625 and HR-120[®] exhibited through-thickness carburization attack.

Print Page