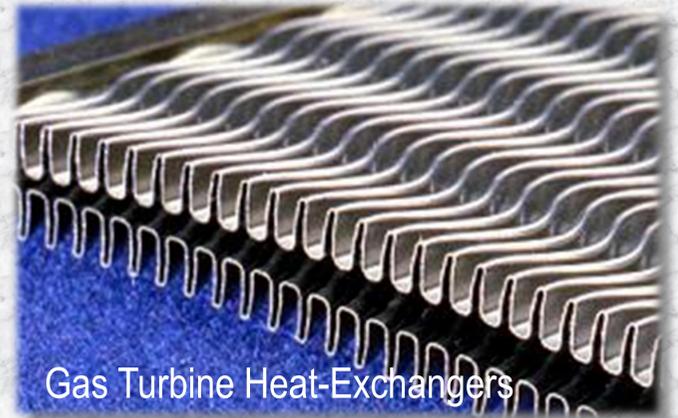
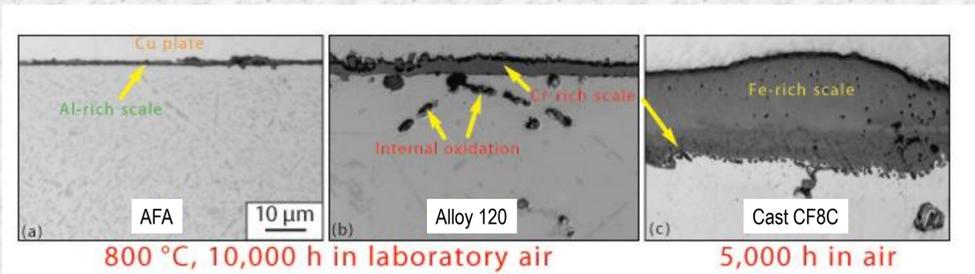


AFA: Alumina Forming Austenitic Stainless Steels

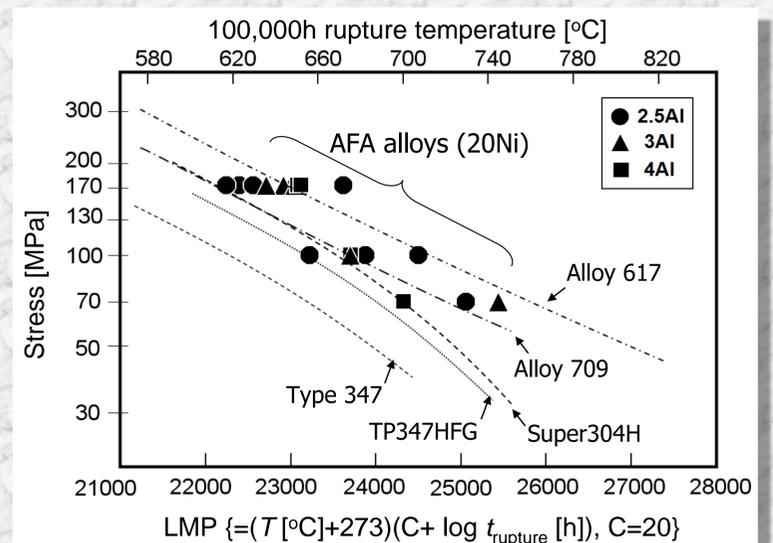
❑ AFA Stainless Steels are of interest for hot components in applications ranging from gas turbines and power plants to chemical and petrochemical processing equipment.



❑ AFA Stainless Steels offer a superior oxidation and creep resistance to commercial heat-resistant steel alloys at elevated temperatures.



Cross-sectional views near surface after exposure at 800°C (courtesy: B. A. Pint)



Larson-Miller Parameter plot of AFA Stainless Steels (Ref: M.P. Brady et al., JOM, 2008, 60 (7) pp.12-18)

❑ AFA Stainless Steels are fabricable in plate, foil, and wire shapes by conventional processing.

AFA Foil, 0.004" thickness



AFA Feed Wire, 0.06" ϕ



Hot- and Cold-rolled AFA Plate, 0.5" thickness



OAK RIDGE NATIONAL LABORATORY

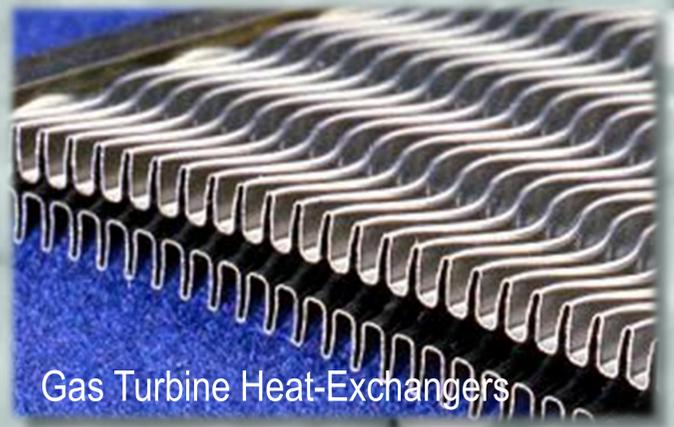
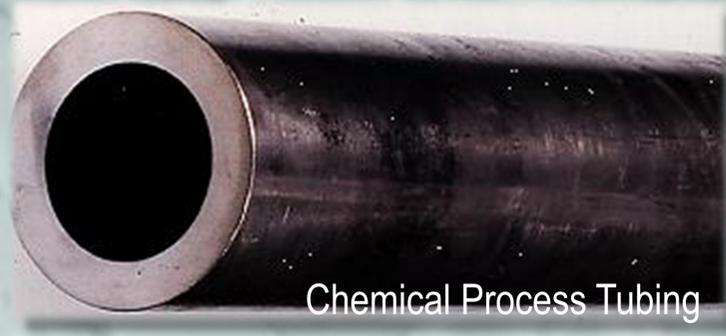
MANAGED BY UT-BATTELLE FOR THE DEPARTMENT OF ENERGY

Sponsored by DOE Industrial Technologies Program
 Contacts: Mike Brady, 865-574-5153, mpbrady@ornl.gov

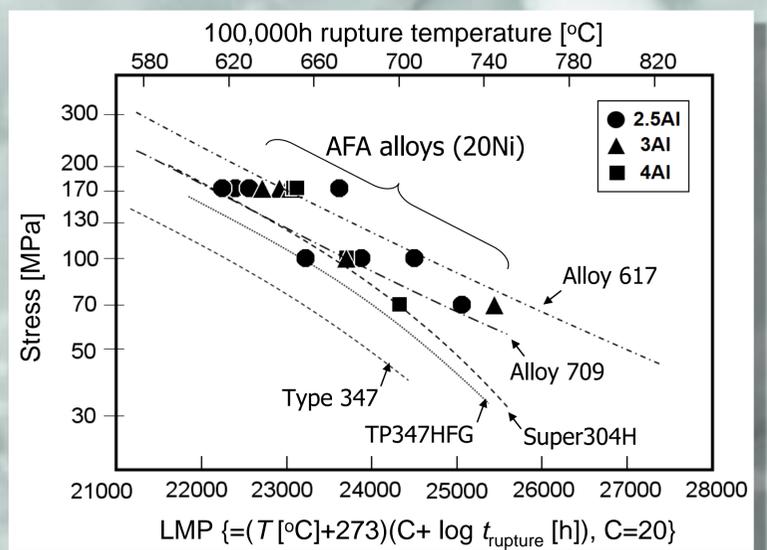
Save ENERGY Now

AFA: Alumina Forming Austenitic Stainless Steels

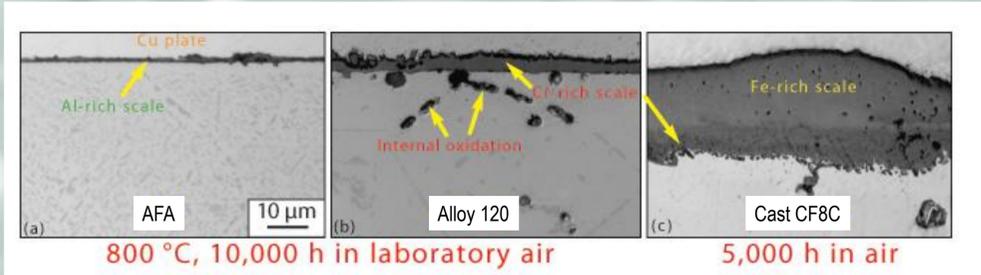
❑ AFA Stainless Steels are of interest for hot components in applications ranging from gas turbines and power plants to chemical and petrochemical processing equipment.



❑ AFA Stainless Steels offer a superior oxidation and creep resistance to commercial heat-resistant steel alloys at elevated temperatures.



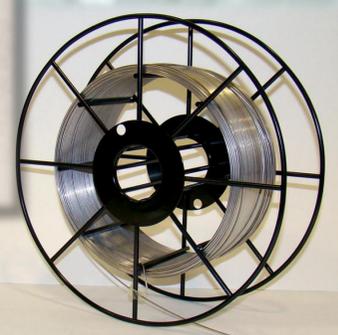
Larson-Miller Parameter plot of AFA Stainless Steels (Ref: M.P. Brady et al., JOM, 2008, 60 (7) pp.12-18)



Cross-sectional views near surface after exposure at 800°C (courtesy: B. A. Pint)

❑ AFA Stainless Steels are fabricable in plate, foil, and wire shapes by conventional processing.

AFA Foil, 0.004" thickness



AFA Feed Wire, 0.06" ϕ



Hot- and Cold-rolled AFA Plate, 0.5" thickness



OAK RIDGE NATIONAL LABORATORY
 MANAGED BY UT-BATTELLE FOR THE DEPARTMENT OF ENERGY

Sponsored by DOE Industrial Technologies Program
 Contacts: Mike Brady, 865-574-5153, mpbrady@ornl.gov

Save ENERGY Now