

In general, the higher the nickel content, the higher the resistance to sensitization, when material is properly annealed. Alloy UNS N08825 with nickel contents closer to the upper limits of the material composition range should be favored when material will be submitted to PWHT before the application.

It is known that carbon plays a role on the sensitization behavior of Alloy UNS N08825, but these studies did not allow a deep interpretation of the correlation between carbon content and intergranular corrosion susceptibility. If the carbon is considered, although all heats have a low carbon content, the slightly lower amount of carbon in heat C in comparison to heats A and B seems to strengthen the positive effect of nickel on increasing its general resistance to intergranular corrosion.

ACKNOWLEDGEMENTS

The authors would like to thank Sebastian Maus from the corrosion laboratory of VDM Metals GmbH for carrying out all the corrosion tests.

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