

عنوان مقاله:

Sermaloy J Penetration Coating Using Slurry Method on Nickel Incol ۷۱۸C jet Engine

محل انتشار:

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نویسنده:

خلاصه مقاله:

To control the oxidation and hot corrosion behavior of nickel Incol ۷۱۸C super alloy, used in jet engine blades, Sermaloy J penetration coating process, which is a type of aluminide coating modified with silicon and chromium, was applied by slurry method. The effect of variables including the percentage of chromium in the slurry, coating thickness (creation of several layers) and coating temperature were modeled and optimized by Minitab software and response surface methodology. Analysis of variance showed a good correlation coefficient for the proposed model ($R^2 = ۹۶.۹$). Energy scattering and corrosion analyzes were performed the results showed that the possibility of penetration of chromium along with aluminum and silicon in the coating by slurry on nickel Incol ۷۱۸C alloy improves the performance of the coating.

کلمات کلیدی:

Slurry Coating, Aluminide Coating, Sermaloy J, Nickel Inco ۷۱۸C alloy
آلومینایدی، Sermaloy J، آلیاژ نیکلی اینکول ۷۱۸C.

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