

## IMPROVED COATING AND METHOD FOR MINIMIZING CONSUMPTION OF BASE MATERIAL DURING HIGH TEMPERATURE SERVICE

### ABSTRACT

An improved coating and method for applying the coating to minimize the consumption of substrate material during high temperature service by formation of an intermediate metal aluminide layer. A layer of Ni or Co or combinations of Ni and Co are added to the substrate material as an overlay by a process such as electroplating or electroless plating. A diffusion aluminide is then formed at the surface by exposing the plated substrate to a source of aluminum at an elevated temperature.