

UPGRADING ALUMINIDE COATING ON USED TURBINE ENGINE COMPONENT

ABSTRACT OF THE DISCLOSURE

A method of upgrading an aluminide coating on a used turbine engine component to a platinum aluminide coating. The method involves cleaning at least one surface of the component to remove hot corrosion products from the surface without damaging the aluminide coating. In one embodiment, the cleaning step involves immersing the component in a heated solution comprising acetic acid while agitating the solution using ultrasonic energy. A layer of platinum is then deposited onto the cleaned surface of the component. A second aluminide coating is then formed on the surface of the component to upgrade the component. The invention also relates to a turbine engine component, e.g., a turbine blade, having a metal-based substrate and a platinum aluminide coating on at least one surface thereof, which coating has been upgraded from an aluminide coating originally on the component using the above method.