



GOLD PLATING ON ALUMINIUM 6061 T6 AND KOVAR

Space Applications Centre (SAC) has developed and qualified a robust gold plating process on Aluminum 6061T6 and Gold plating on Kovar for space use. These processes are qualified for space use with very tight tolerances on various process parameters after subjecting to various tests like visual inspection, adhesion test, and environment tests, and engineering property specific tests conforming ASTM and MIL standards. Kovar is used to fabricate carrier plates which act as support for MICs for use in communication payloads.

Applications

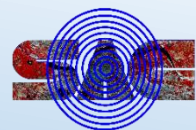
Space grade mechanical components (Electronics circuit housing boxes, carrier plate etc.).
Semiconductor industry e.g. in electrical switch contacts, connector pins and barrels etc.

Technology Transfer

SAC/ISRO offers to transfer this technology of the **Gold Plating On Aluminium 6061 T6 and Kovar** developed by SAC to industries in India with adequate experience and facilities. Enterprises interested in obtaining knowhow may register and submit their proposal to IN-SPACe, Ahmedabad at www.inspace.gov.in

For more details, Contact:

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https://www.sac.gov.in/SAC_Industry_Portal



Salient Features

- This process is developed to withstand harsh space conditions
- Acidic gold potassium cyanide plating process
- Easy to control and maintain
- Optimized for uniform and dense thickness

Specifications

Plating on Aluminum 6061T6

Undercoat: Nickel-Phosphorous
(Electroless Nickel)
Composition of undercoat:
Nickel-Phosphorous (8-12%)
Undercoat thickness: 10-12 μ
Topcoat: Gold (Electroplating)
Type: Acidic Gold Potassium Cyanide
Purity of Gold: 99.99%
Thickness of Gold plating: $2.5 \pm 0.5 \mu$

Plating on Kovar

Undercoat: Nickel Electroplating
Undercoat thickness: 3-4 μ
Topcoat: Gold (Electroplating)
Type: Acidic Gold Potassium Cyanide
Purity of Gold: 99.99%
Thickness of Gold plating: $2.5 \pm 0.5 \mu$

