TECHNOLOGY TRANSFER

Interest Exploratory Note

Corrosion Resistant Coating NRCM-204

NRCM-204 is a corrosion resistant coating material for metals and composites to protect from various environments like nitric oxide, dinitrogen tetroxide (N_2O_4), mixed oxides of nitrogen, concentrated nitric acid (Conc.HNO_3) etc. The system is comprised of inorganic-organic hybrid network consisting of hydroxy siloxane, epoxy-amine based alkoxysilanes, crystoballite silica. Complete curing of the system is achieved by simultaneous curing of epoxy-amine and hydroxy siloxane-alkoxysilane in presence of tin based catalyst.

Salient Features

- Ambient temperature curing
- Corrosion resistant material to protect from harsh oxidizing environment

Properties

LSS (Al/Al) at RT, ksc	:	□10
Tensile strength, ksc	:	□5
Tensile Modulus, ksc	:	5 to15
Elongation (%)	:	70 to120
Dip test of coating in Conc. HNO_3 for 3 days	:	No Peel off

Applications

NRCM-204 offers a highly corrosive resistant coating which can be coated over metals and composites for almost all type of corrosion which includes various acids. Conventional polymeric materials will not withstand such a highly corrosive environment.

Department of Space has authorised NSIL for Technology Transfer of Corrosion Resistant Coating NRCM-204 to suitable entrepreneurs/ Industry in India. Interested Parties may please fill the enclosed form and send by email to contact-nsil@isro.gov.in