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ABSTRACT

METHOD FOR LOW TEMPERATURE LAMINATION OF METALS TO
POLYIMIDES

The present invention is directed to a method for the lamination of metals, and
5 especially copper, to the surface of polyimides and derivatives of polyimides at
temperatures substantially below the curing temperature of the imide polymers. More
specifically, the invention is directed to a method for surface modification of polyimides
and derivatives of polyimides by thermal graft copolymerization and interfacial
polymerization with concurrent lamination of the metal of interest in the presence of an
10 appropriate functional monomer. The process can be carried out under atmospheric
conditions and either in the presence or the complete absence of an added polymerization
initiator. The so laminated polyimide-metal interfaces exhibit T-peel adhesion strengths in
excess of 16 N/cm. The adhesion strength also exceeds the fracture strength of polyimide
films with a thickness of 75 μm .



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