

ABSTRACT**METHOD FOR INITIATOR-FREE SURFACE GRAFT
COPOLYMERISATION WITH LAMINATION OF POLYMER FILMS
IN ATMOSPHERE**

This invention relates to a method to impart adhesion or bonding between two contacting surfaces of similar or dissimilar polymers through the modification of the polymer surfaces by thermal or photo-induced grafting or graft polymerization. Under this method photografting or thermal grafting is induced with the polymer surfaces in contact, resulting in simultaneous lamination of the polymer substrates. Both the photografting and photolamination, or thermal grafting and thermal lamination are carried out under atmospheric condition in the complete absence of an added photoinitiator, thermal initiator or system degassing. The properties can be imparted on the surface of most polymer films, including polyolefins, polyesters, hydrocarbon polymers, and fluoropolymers, as well as on the surface of electroattractive (conductive) and conjugated polymer. Photografting, thermal grafting or surface graft copolymerization with concurrent lamination can be carried out in the presence of one or more functional monomers.