

ABSTRACT

BUTYL IONOMER HAVING IMPROVED SURFACE ADHESION

A butyl rubber ionomer having improved adhesion to substrates whose surfaces have polar functional groups. Examples of such substrate materials include stainless steel, glass, mylar or Teflon®. The adhesion of the butyl rubber ionomer to the substrate is at least 25% greater than the adhesion of a non-ionic butyl rubber to the same substrate surface and with certain substrates is more than 150% greater. The adhesion is improved with increasing levels of multiolefin content in the butyl rubber ionomer. The adhesion is greatest for butyl rubber ionomers having a high multiolefin content (at least 3.5 mol% of multiolefin monomers or at least 1.5 mol % of residual multiolefins). By taking advantage of these high adhesion levels, a composite article can be formed between the butyl rubber ionomer and the substrate.