

WATERBORNE ACRYLIC DISPERSIONS AS CONTACT ADHESIVES FOR FOAM BONDING

ABSTRACT

Waterborne acrylics are widely used for PSA applications like tapes, labels and surface protection films, whereas contact adhesives for the foam and mattress industry are mainly based on chloroprene dispersions. Applied on substrates like foam or wood, contact adhesives based on chloroprene dispersions show unique behavior like instant tack, high green strength and creep resistance. As the market is looking more and more for ecologically friendly chlorine-free products Synthomer has developed an alternative solution which is based on waterborne acrylic technology, free of chloroprene.

In this paper, we will describe acrylic dispersions which are stabilized in a way

that they can be used for 1K or 2K spray and roller applications, just like chloroprene based dispersions are used today. Furthermore, the newly developed dispersions can be mixed with chloroprene dispersions in any ratio as they are fully compatible with them. This allows the customer to formulate a product for their desired applications and needs. Our in-house developed test methods show very good initial tack on PU-foam and bonding strength even under restoring forces.

We see this technology as a very good step forward to substitute chloroprene dispersions as we can show that adhesive properties of our acrylic dispersions are just like chloroprene dispersions.