

ABSTRACT

THERMOPLASTIC POLYURETHANE WITH REDUCED TENDENCY TO BLOOM

The present invention discloses a thermoplastic polyurethane which is comprised of the reaction product of (1) a hydroxyl terminated polyester intermediate, (2) a polyisocyanate, and (3) a glycol chain extender; wherein the hydroxyl terminated polyester intermediate is comprised of repeat units that are derived from 1,3-propylene glycol and a dicarboxylic acid; wherein the hydroxyl terminated polyester intermediate has a number average molecular weight from 500 to 10,000; and wherein the thermoplastic polyurethane includes hard segments that are the reaction product of the polyisocyanate and the glycol chain extender. This thermoplastic polyurethane is unique in that it has a greatly reduced tendency to bloom. This is highly desirable in applications where high clarity is desired because blooming causes articles containing the thermoplastic polyurethane to be hazy or foggy in appearance. Blooming can also reduce the ability of an article made with the thermoplastic polyurethane to be securely bound to another article with an adhesive.

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