

CATALYSIS

Catalysts for Waterborne Polyurethane Coatings: Dry Times and Pot Life

Reaxis Catalysts

BISMUTH

REAXIS®C739W50

REAXIS®C739E50

TIN

REAXIS®C333W50

REAXIS®C333E50

REAXIS®C218 (DBTL)

ZINC

REAXIS®C622W78

*Formulation:

Polyol:

Bayhydrol XP7110 (Bayer: Polyester polyol dispersion)

Isocyanate:

Easaqua M 502 (Vencorex; HDI)

Catalyst loading:

0.1% catalyst solids on total resin solids

Reaxis has developed a family of catalysts that impart similar film property development characteristics compared to the use of the traditional catalyst of choice, dibutyltin dilaurate (DBTL). Unlike DBTL, these unique catalysts provide for improved water stability and enhanced selectivity. As the urethane reaction is most important in regards to molecular weight build-up and formation of crosslinks and thus film property development, selectivity over the water reaction is preferred. An additional benefit of catalyst stability in water is the improvement of Part A shelf-life in 2K systems. These novel catalysts contain various metal centers, including bismuth, zinc and tin, and are all supplied as aqueous solutions. Nonaqueous diluents can also be used in most cases.

CATALYSTS FOR 2K WATERBORNE POLYURETHANE COATINGS: DRY TIMES AND POT LIFE(*)

