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INTRODUCTION OF NEW CNSL DERIVATIVES FOR ADHESIVE APPLICATIONS

ABSTRACT

CNSL based chemistries have been widely utilized in epoxy resins and curing agents for their fast cure and excellent durability against adverse external conditions. More recently CNSL polyols and diols have gained increased attention and made contributions to the improvement of water resistance and durability of polyurethane systems. To support increased demand of bio-based chemistry beyond epoxy and polyurethane applications, Cardolite has designed materials with different functionalities including acrylate/methacrylate, silane, and waterborne curing agents. CNSL based methacrylates are tested for adhesives and 3D printing, their benefits are being discussed. CNSL silanes have been investigated to determine their utility as an adhesion promoter and modifier in epoxy formulations. The hydrophobicity of CNSL has been a unique and valuable property in coating and adhesive applications, however such feature has become a challenge when CNSL chemistry is incorporated in water. For the first time, Cardolite has started to offer CNSL waterborne curing agents. Their outstanding performance in adhesives will be discussed in the paper.