



TURNING CO<sub>2</sub> INTO ENDLESS POTENTIAL

## ABSTRACT

Replacement of petroleum-based polymers with renewable alternatives is an important goal for many within the chemical industry with much attention focused on the utilization of carbon dioxide as a raw material to produce sustainable polyols. This has led to a growth in CO<sub>2</sub>-based polyurethane technology in recent years, with polyols made from CO<sub>2</sub> and propylene oxide becoming commercially available and demonstrating technical advantages in various polyurethane applications. Econic's Catalyst Technology enables the utilisation of CO<sub>2</sub> as a feedstock for polyol production, with the unique ability to control the level of CO<sub>2</sub> incorporated. This creates polyols in which the balance of carbonate and ether linkages can be tailored to both the processability and product properties of the polyurethanes produced. This presentation describes the use of polyols produced using Econic's Catalyst Technology in several polyurethane applications, showing performance advantages in the areas of coatings, adhesives, elastomers and rigid foams.