



Agile Manufacturing of Glass Carriers for Advanced Packaging **Zay Zhang, Corning Incorporated**

Glass as a temporary carrier material has proven its value in advanced wafer thinning and high-performance fan-out packaging. As these technologies advance, new challenges emerge that require glass innovation. For example, more RDL layers require carrier glass to be thinner and thinner, yet in-process warp still needs to be managed and controlled. We discuss recent innovations at Corning that allow fine granularity CTE engineering as well as high Young's modulus. We discuss impact of this work on in-process warp control as well as the associated production methodology that provides rapid prototyping and high-volume manufacturing.