

Conductive Adhesive; A Lead Free Alternative for PV Energy

Helge Kristiansen, Conpart

ABSTRACT: Conpart AS is developing a novel concept for conductive adhesives for use in electrical interconnection of solar modules. The goal is to provide an alternative to the current soldering process in module manufacturing, enabling lower process temperatures and reducing the amount of toxic elements, e.g. lead. The conductive adhesive is based on replacing solid silver flakes by polymer particles coated with a thin layer of silver. The main advantage of this concept, compared to conventional conductive adhesives, is a typical ten-fold reduction in silver consumption. This conductive adhesive concept represents a promising and realistic alternative to soldering for use in PV energy.