

IEC TS 63209-2 and Extended Testing of PV Polymeric Components

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Abstract:

Polymeric packaging materials play a critical role in the long-term reliability of PV modules, however, there has not been a standard approach to evaluating these materials for long term durability.

Extended module testing is described in IEC TS 63209 Part 1, Extended stress testing for PV modules, but falls short for evaluation of polymeric materials, particularly with regard to UV exposures. Part 2 has been developed to fill that gap and describes extended testing for PV backsheets and encapsulants.

This presentation will include first a review of field examples of backsheet degradation to show the importance of developing methods for evaluation of long-term durability, and then describe the basic level of encapsulant and backsheet reliability testing in IEC standards, and the extended stress levels in IEC 63209-2.

Short Bio:

Nancy Phillips is the Leader for a number of IEC PV projects related to module safety and polymeric component testing. She has worked in backsheet research and development for ten years at DuPont and 3M.