Biography

Ir. François Rummens received his Civil Engineering Degree in Materials Science from the University of Louvain-La-Neuve, Belgium in 1987.

Along his career as polymer scientist, he has developed a strong expertise in the field of durability of a.o. TPO waterproofing membranes and Decorative laminates.
The service life of such polymeric material is typically at least 25 years, directly submitted to UV light, high humidity, heat and thermal cycles.

After analysis of the structure and specific requirements of PV modules, he has developed, tested and patented new concepts of backsheets, benefitting from his durability expertise.

He has recently joined the Belgian Electrotechnical Committee with as focus standards related to renewable energies and circular economy.

Abstract:

The transition to the circular economy will be systemic, deep and transformative, in the EU and beyond. Regulators, hand in hand with users, will demand more and more concrete approaches to achieve circularity. It is important to develop in this context guidance to foster Responsible PV Module Re-Use. Recently IEC TC 82 launched a call for experts to write a Technical Report on the subject. In this presentation, several aspects will be discussed: Field data acquisition to minimize PV modules Re-Use qualification cost. PV module ease of repair (diodes, junction box, backsheet) and repair assessment. PV plant design to extend overall durability. It is also anticipated that PV module Re-Use will further benefit by market demands and technological trends like PV module type monitoring to define accurate performance long-term degradation in several regions, safeguarding long term availability of spare modules matching existing modules and mounting system, blockchain technology to maintain accurate records and prevent fraud.