

WEATHERING AND POLYMER DEGRADATION

REVIEW ARTICLE

ABSTRACT

The main purpose of this Paper is to present a state of the art about weathering and polymer degradation. This review was presented during a training course promoted by the 5th European Weathering Symposium EWS (XXVIIth Colloquium of Danubian Countries on Natural and Artificial Ageing of Polymers), which was held in Lisbon on September 21 - 23, 2011, organised on behalf of CEEES (Confederation of European Environmental Engineering Societies) by the German Management Society for Environmental Engineering GUS (Gesellschaft für Umweltsimulation e.V.) and supported by SOPSAR (Sociedade Portuguesa de Simulação Ambiental e de Avaliação de Riscos), APIP (Associação Portuguesa da Indústria de Plásticos) and LNEC (Laboratório Nacional de Engenharia Civil).

The main topics of this review are the weathering of polymers and composites, the determination, simulation and effects of relevant climatic quantities, innovative polymer additives, new test procedures and devices, instrumental methods of analysis to evaluate polymer degradation, recent developments in polymeric materials and composites designed for outdoor applications and methods for service-life prediction.