

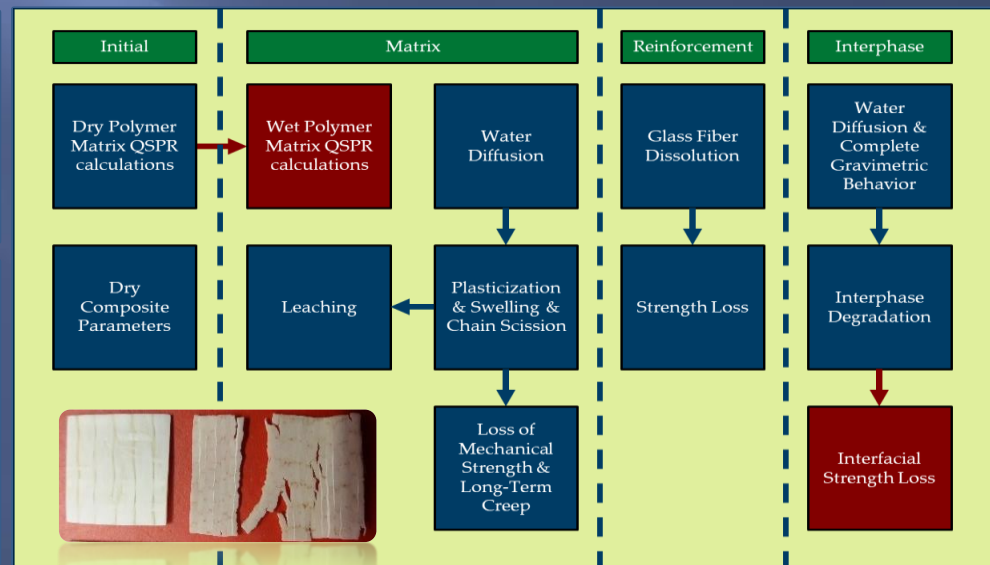
Predicting Environmental Ageing of Composites: Modular Approach & Multiscale Modelling.

Andrey E. (Andrejs) Krauklis, Ph.D., LU MMI.
andykrauklis@gmail.com / andrejs.Krauklis@lu.lv

Composites are often exposed to temperatures, stresses, water and humid air environments, where ageing processes reduce materials' service life. Qualification of new composites involves extremely expensive experimental validation. The aim of the project is to create a modelling software for predicting the durability of composites.

The composite has three constituents: (1) polymer matrix, (2) fiber reinforcement, and (3) sizing multi-component coating. Each ingredient degrades differently.

Key results include:
Several composite degradation prediction modules have already been developed and modelling software is being actively developed.



The project is implemented within the framework of "ERAF 1.1.1.2" Post-doctoral Research Aid "of the Special Objective 1.1.1 of the Operational Program" Growth and Employment "(Nr.1.1.1.2/VIAA/4/20/606)".