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INFLUENCE OF CREEP LOAD ON AGING AND FRACTURE MECHANIC BEHAVIOUR OF SHORT FIBRE REINFORCED PEEK

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Static tests are unavoidable for a full long time material behaviour characterisation of polymers. Even for cyclic loads, the static load behaviour is (with theoretically zero amplitude at a certain load level) the limitation. The same principle can be used for fracture mechanic tests. Since short fibre reinforced polymers are investigated, also the fibre orientation needed to be considered. The results show a similar effect of the fibre orientation on the static strength for a certain time to failure.







There is a very low influence of the stress intensity factor on the IR spectrum on the crack for the investigated polymer and







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