

INFLUENCE OF PROCESSING METHODS ON THE BEHAVIOR OF WASTE RUBBER POWDER-MODIFIED RUBBER MATRIX

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Rubber waste is one of the biggest problems in current industry and society. All problems are also challenges for development. The largest amount of rubber waste comes from tires, the landfilling of which is prohibited in the most developed countries. In our study, ways of tire recycling must be found and further developed. Here, we investigate the possibility of using waste rubber powder (WRP) in a test matrix without sacrificing the mechanical properties of the thus-modified matrix. The WRP (particle size < 0.4 mm) produced by the water jet process, was added to the new rubber matrix applying different processing parameters (mixing machine, order of mixing, temperature, revolutions of rotors, WRP activation). The properties (tensile test, DMA, SEM...) of all samples were measured and compared with each other.