

**TEXTILE WASTE/SCRAP RUBBER COMPOSITE FOR
TECHNICAL APPLICATIONS**



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ABSTRACT

Natural rubber (NR) was compounded with waste polyester fabrics using internal mixer and two roll mill. The effects of the waste polyester fabric used as filler in natural rubber compound were studied. Physical test were conducted including tensile test, hardness test, resilience test, ageing test, density and Mooney viscosity. Tensile test results show that filled NR compound has lower strength than NR compound without filler. However the hardness, resilience, density and Mooney viscosity value shows the opposite. Morphology studies using Field Emission Scanning Electron Microscopy (FESEM) show that the waste polyester fabrics were well dispersed in the rubber matrix but showing poor bonding between them.

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