Accepted Manuscript

Wear resistant all-PE single-component composites via 1D nanostructure formation during melt processing

Timo Hees, Fan Zhong, Christof Koplin, Raimund Jaeger, Rolf Mülhaupt

PII: S0032-3861(18)30663-3

DOI: 10.1016/j.polymer.2018.07.057

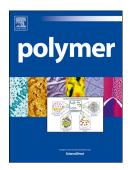
Reference: JPOL 20776

To appear in: Polymer

Received Date: 18 June 2018
Revised Date: 19 July 2018
Accepted Date: 21 July 2018

Please cite this article as: Hees T, Zhong F, Koplin C, Jaeger R, Mülhaupt R, Wear resistant all-PE single-component composites via 1D nanostructure formation during melt processing, *Polymer* (2018), doi: 10.1016/j.polymer.2018.07.057.

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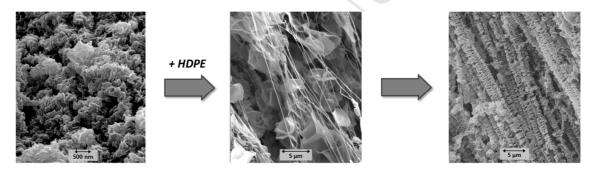
TOC

1D-nanostructure formation during melt processing in the presence of tunable bimodal reactor blends affords all-PE single-component composites exhibiting simultaneously improved wear resistance, stiffness, strength, and toughness. Wear resistance similar to that of UHMWPE and high performance are achieved without addition of alien materials and without sacrificing other benefits typical for HDPE commodities.

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ToC figure



PE Reactor Blend

"All-PE Composite"

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