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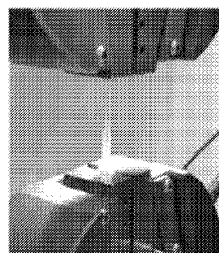
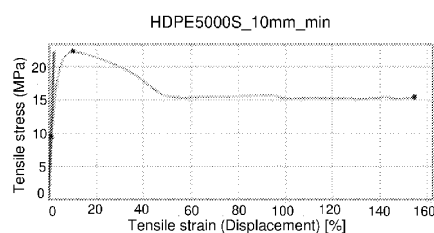
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(54) Title: A POLYOLEFIN COMPOSITE AND A METHOD OF PREPARATION THEREOF

Step 1: Tensile test at 10 mm/min to 150%



Step 2: Continued tensile test at 1 mm/min to break

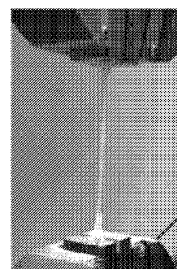
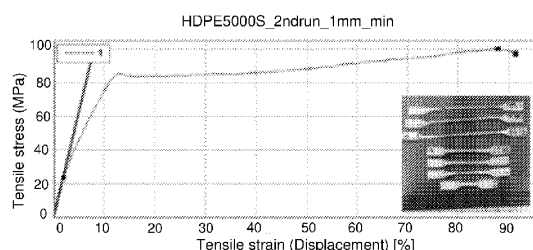


FIG. 1

(57) Abstract: Describe herein is a polyolefin composite and a method of preparation. The method includes blending a mixture comprising 50 to 94.9 weight percent (wt%) of a matrix polymer, 5 to 40 wt% of a reinforcement polymer; and 1 to 20 wt% of a crosslinked molecule and/or 0.1 to 10 wt% of a nanofiller to provide a blended mixture, wherein the weight percent of each component is with respect to the polyolefin composite; and forming the polyolefin composite from the blended mixture, wherein the matrix polymer is a first polyolefin with a number average molecular weight of at most 300,000, and the reinforcement polymer is a second polyolefin with a number average molecular weight of at least 1,500,000. The polyolefin composite includes the matrix polymer, the reinforcement polymer, and the crosslinked molecule and/or the nanofiller as described aforementioned.

[Continued on next page]

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