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Recycling polyethylene terephthalate (PET) using chain extenders via reactive extrusion (REX)

PET-based velour carpets used in the automotive industry were recycled using REX through the incorporation of chain extenders. It is not possible to recycle this material using the standard extrusion process due to thermal degradation of the polymer chain. Velour carpets are not composed of 100% PET material therefore standard chemical recycling methods will not work. Reactive extrusion using chain extenders is a viable option to re-process the material with minimal loss of material properties