

Abstract Submitted
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Polyethylene **crystalliza-**
tion in compatibilized polyethylene/polyamide 6 blends SIMONA CECCIA,
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PAUL SOTTA, 1CNRS/Rhodia UMR5268, St.Fons (France) — Blends of semicrys-
talline polymers can exhibit much better properties than each of the pure polymers
regarding e.g. impact/modulus compromise. Controlling the crystallization mecha-
nisms (nucleation, kinetics) is a key factor to obtain the desired morphologies which
lead to these unique properties. We have studied the crystallization of polyethylene
(PE) in blends of PE and polyamide 6 (PA) compatibilized by PE functionalized
with maleic anhydride (PE-g-MA, 1 wt% MA) obtained by reactive blending. Sam-
ples with different amounts of PA6 (0-60 %vol) have been investigated by polarized
optical microscopy and Differential Scanning Calorimetry. The samples were heated
at a temperature above the melting temperature of PE and below the melting tem-
perature of PA, and then cooled at the selected crystallization temperature. We
describe how the crystallization kinetics is modified by the presence of PA and MA.

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