materials

Supplementary Materials

Morphology, Rheology and Crystallization in Relation to the Viscosity Ratio of Polystyrene/Polypropylene Polymer Blends

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The zero-shear viscosity was determined by fitting the experimental curves of shear rate sweep data through the modified Carreau–Yasuda model. An example of curve fitting is shown in Figure S1 for the PP3 polymer. Others were determined in analogy, from the data shown in Figure 5.

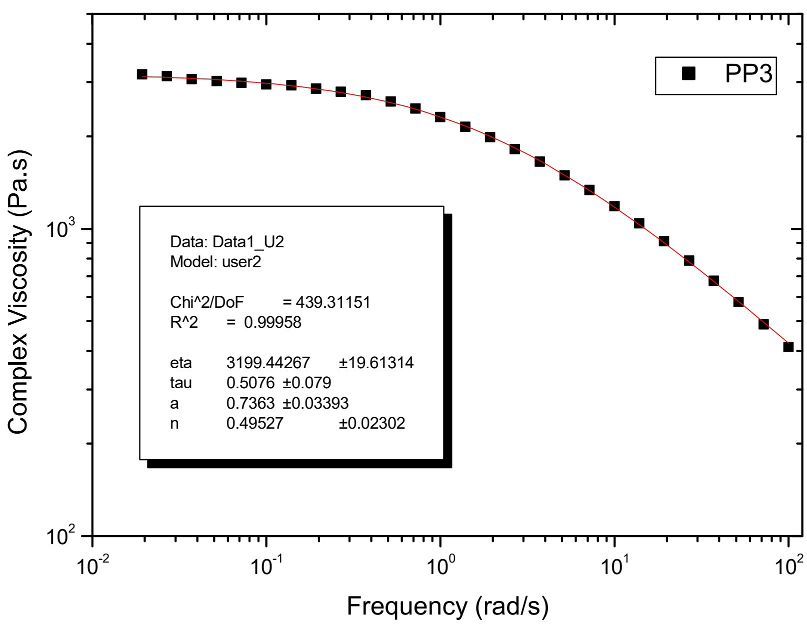

Figure S1. Curve-fitting according to Carreau–Yasuda model for PP3.

The values for the viscosity, *h*, and viscosity ratio, *K*, were determined at different temperatures, as summarized in Table S1. The values for zero-shear viscosity were determined by fitting the experimental curves of shear rate sweep data, as shown in Figure S2, for two materials, through the modified Carreau–Yasuda model, as explained before.

Table S1. Temperature dependency of viscosity, η, and viscosity ratio, *K*.

Temperature (°C)	$\eta_{0,PP}$ (Pa.s)	$\eta_{0,PS}$ (Pa.s)	$K = \eta_{0,PP}/\eta_{0,PS}$
160	7.10^3	6.10^4	0.1
180	5.10^3	1.10^4	0.5
200	$3.5.10^3$	3.10^3	1.1
220	3.10^3	$1.2.10^3$	2.5

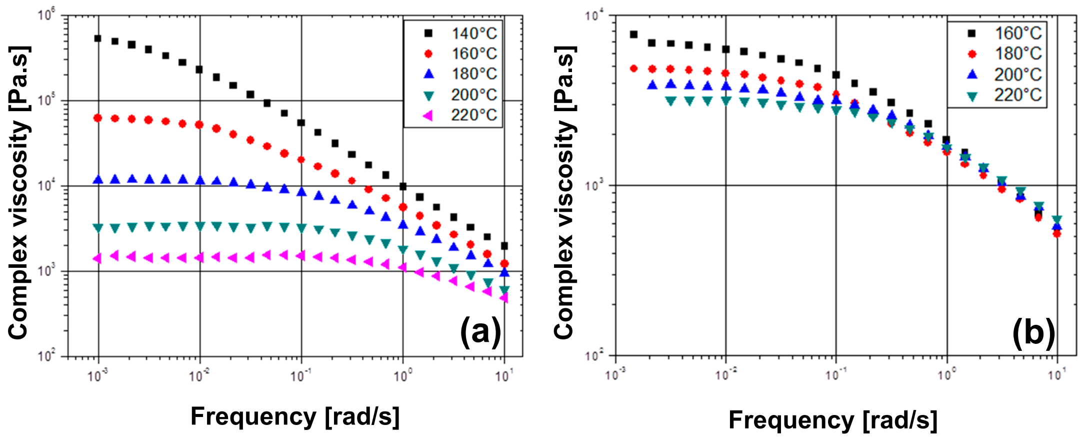

Figure S2. Evolution of complex viscosity for native polymer melts as a function of frequency during oscillatory testing at different temperatures of 160, 180, 200, and 220 °C for two materials, (**a**) PS, (**b**) PP3.