

Supplementary Materials

High-Temperature Tensile and Creep Behavior of Polypropylene/Poly(butylene terephthalate) Blends: Matrix Fibrillation and Interfacial Debonding

Mio Kudo^{1,2}, Mai Ishikawa³, Hirotaka Horiguchi¹, Shinya Goto¹,
Hiromu Saito² *

¹ Materials Engineering R & D Division, DENSO CORPORATION, Kariya-shi
448-8661, Aichi, Japan

² Department of Applied Chemistry, Tokyo University of Agriculture and
Technology, Koganei-shi 184-8588, Tokyo, Japan

³ Department of Industrial Technology and Innovation, Tokyo University of
Agriculture and Technology, Koganei-shi 184-8588, Tokyo, Japan

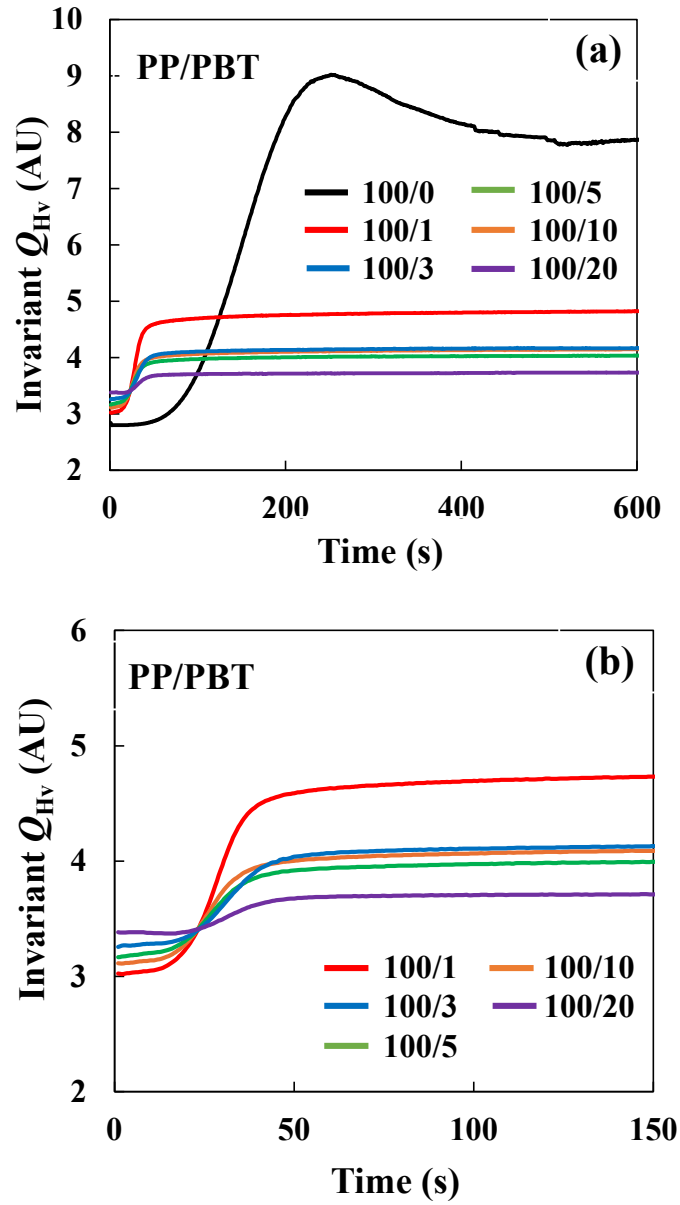


Figure S1. Time evolution of the integrated Hv (cross-polarized) light scattering intensity, Q_{Hv} , of PP/PBT blends with various compositions during isothermal melt crystallization at 130 °C: (a) long-period region, (b) short-period region. Details of the experimental method are described in Reference [43].

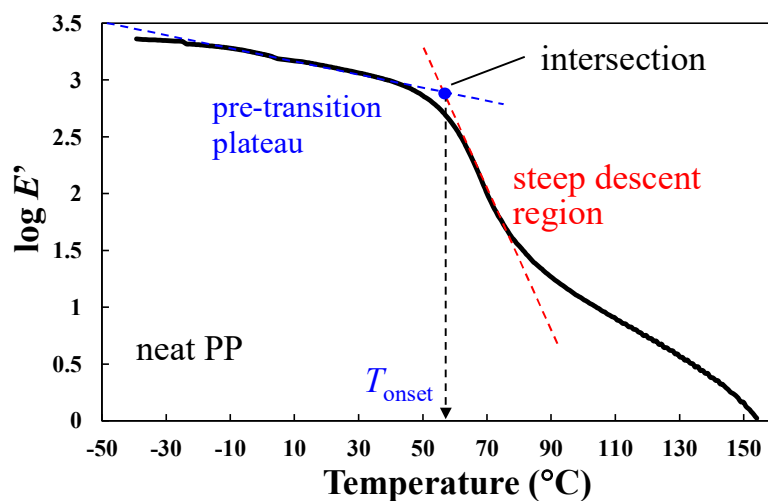


Figure S2. Schematic illustration of the determination of the α_c -relaxation temperature from the onset of the E' drop. The onset temperature was quantitatively identified from the intersection of two linear tangents: one along the pre-transition plateau and the other along the steep descent region of the E' curve.

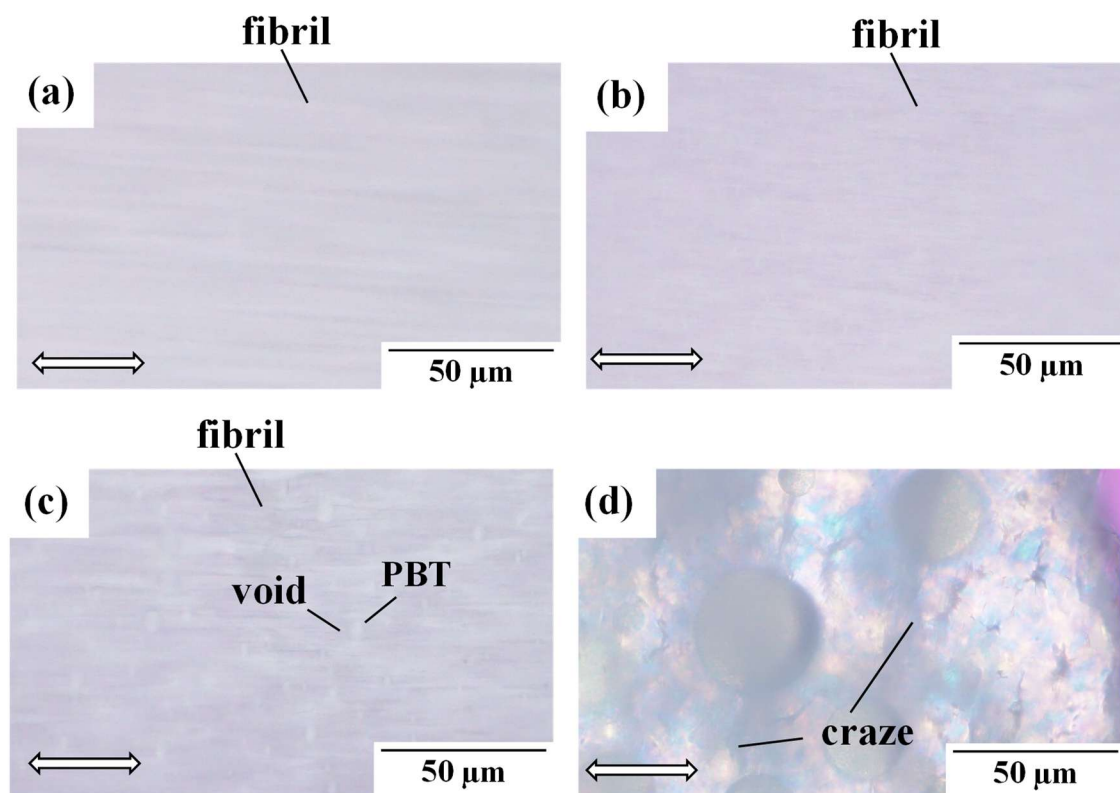


Figure S3. Polarized optical micrographs of PP/PBT blends with various compositions showing the regions near the fracture after tensile testing at 100 °C: (a) 100/0 (neat PP), (b) 100/1, (c) 100/3, (d) 100/20. The arrow indicates the drawing direction.