

## Rheological Properties and Wall Slip Velocity of Polycarbonate / Carbon Fiber Composite

변노석, 승유탉, 김우년\*, 이현상<sup>1</sup>, 금종구<sup>1</sup>  
고려대학교 화공생명공학과; <sup>1</sup>LG화학 테크센터  
(kimwn@korea.ac.kr\*)

Polycarbonate (PC) / carbon fiber (CF) composites were prepared by twin screw extruder at 250°C. Rheological behavior of PC / CF composites with carbon fiber was investigated. The PC / CF composites were characterized by advanced rheometric expansion system (ARES) and capillary rheometer. As increasing the fiber length and the fiber content, storage and loss modulus of the PC / CF composites were increased. From the rheological measurements of the PC / CF composites, the wall slip behavior is demonstrated from the capillary rheometer data. To measure the wall slip velocity, rotational rheometer was investigated at various gap distances of the parallel plates. From the above measurements, it is suggested that the wall slip velocity is increased as the shear stress is increased. Also, the wall slip velocity is invested within the CF content from the ARES.