Advanced Materials Research, vol. 795, 2013, pages 383-387

The effect of different sizes "Batu Reput" (Dolomite) as a filler in SMR L and ENR-50

Abstract

The effects of different sizes of "Batu Reput" (Dolomite) filler which are smaller size (<63μm) and bigger size (75-150μm) on tensile and morphological properties of "Batu Reput" (Dolomite) filled SMR L and epoxidized natural rubber (ENR-50) blends were investigated. Results indicated that, the tensile properties, such as tensile strength (TS), elongation at break (Eb) and stress at 100% elongation (M100) of "Batu Reput" (Dolomite) filled SMR L higher than "Batu Reput" (Dolomite) filled ENR-50 blends, particularly, at 15 phr of smaller size of "Batu Reput" (Dolomite). The scanning electron microscopy studies proved, "Batu Reput" (Dolomite) filled SMR L illustrated a higher "Batu Reput" (Dolomite) - SMR L matrix interaction compared with "Batu Reput" (Dolomite) filled ENR-50.

Keywords

"Batu Reput "(Dolomite); Epoxidized natural rubber (ENR-50); Morphological study; Standard Malaysian Rubber (SMR L); Tensile properties