GLOSSARY OF TERMS

$\Delta E = $ Activation energy for viscous flow
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\tau_{wa} = $ Apparent wall shear stress
$\dot{\gamma}_{wa} = $ Apparent shear rate at wall
XNBR = Carboxylated nitrile rubber
$L_c = $ Critical fibre length
$A_p = $ Cross sectional area of the plunger
$d_c = $ Diameter of capillary
$d_e = $ Diameter of extrudate
EPDM = Ethylene propylene diene monomer rubber

$V_f = $ Fibre volume fraction
$W_f = $ Fibre weight fraction
$n' = $ Flow behaviour index
$F = $ Force on plunger
$T_g = $ Glass transition temperature
$HMT = $ Hexamethylene tetramine
$HHMM = $ Hexamethoxy methyl melamin
$HRH = $ Hexa-Resorcinol-Hydrated Silica
$HDPE = $ High density polyethylene
$L = $ Length of the fibre
$E'' = $ Loss modulus
$L_DPE = $ Low density polyethylene
$\sigma_y = $ Matrix yield stress
$tan\delta = $ Mechanical loss factor
$T_m = $ Melting temperature
$E_{L} = $ Modulus of the composite in the longitudinal direction
$E_T$ = Modulus of the composite in the transverse direction

$Q_t$ = Mole uptake of the solvent/100 gm of polymer

NR = Natural rubber

CBS = N-cyclohexyl 2-benzthiazylsulphenamide

NBR = Nitrile rubber

SEM = Scanning electron microscope

$\eta$ = Shear viscosity

$E'$ = Storage modulus

$\sigma_o$ = Stress at zero time

$\sigma_t$ = Stress at 't' time

$\sigma_{fu}$ = Ultimate fibre strength

$\sigma_{cu}$ = Ultimate composite strength

R = Universal gas constant

UTM = Universal Testing Machine

$V_m$ = Volume fraction of matrix

$V_I$ = Volume fraction of rubber in unswollen state

Q = Volumetric flow rate

$E_f$ = Young's modulus of fibre

$E_m$ = Young's modulus of matrix