Supporting Information

Nylon 6,6/graphite nanoplate composite films obtained from a new solvent

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\textbf{Figure S1:} DSC melting thermograms of the nylon 6,6/GnP composites.

The DSC thermograms of the samples of bare nylon 6,6 and with different GnP loadings are shown in Figure S1. The dissolution of nylon 6,6 in the TFA-acetone solvent gives rise to two melting peaks at 253 °C (\(T_{m1}\)) and 262 °C (\(T_{m2}\)). \(T_{m1}\) is generally attributed to less stable crystalline lamellae formed during re-crystallization, while \(T_{m2}\) is due to the highly crystalline lamellae of nylon 6,6 \cite{1}, \cite{2}, \cite{3}. Upon the GnP addition in the nylon 6,6 matrix \(T_{m1}\) is gradually merged into
$T_{m2}$, with increasing GnP load. At the two higher loads the different crystalline domains give rise to one broader melting peak at around 261°C, indicating that the thickening of the more crystalline lamellae is probably unaffected by the re-crystallization.

References:

