Supplementary Data

Breaking the graphite through ball-milling process: the thermal conductivity and mechanical properties of polyethylene composites

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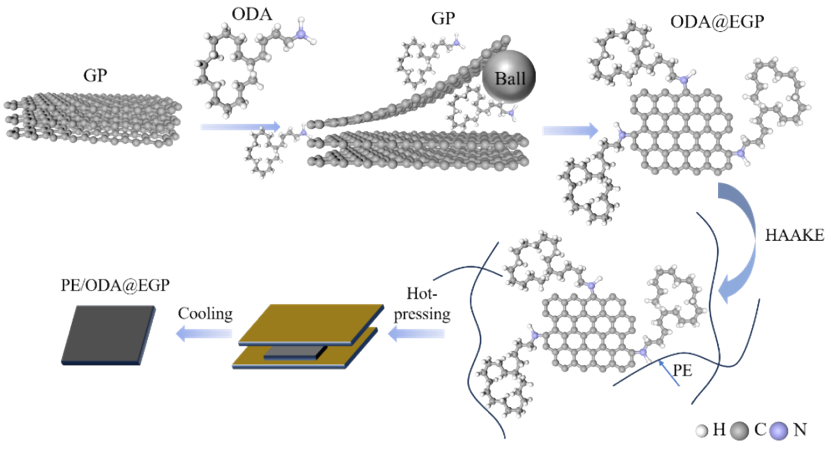

Fig.S1 Flow chart of the composite material preparation

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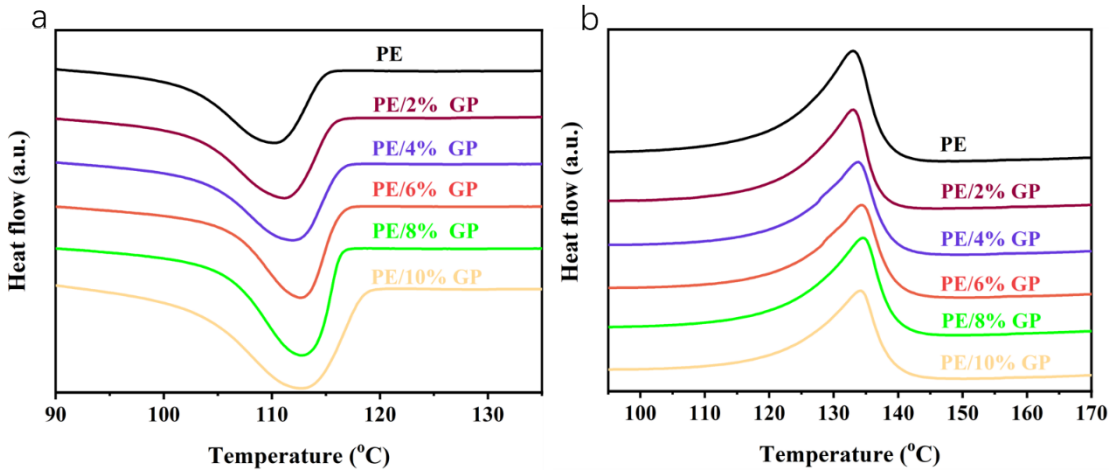

Fig.S2 DSC curves for PE, PE/GP composites, (a) reheating, (b) cooling

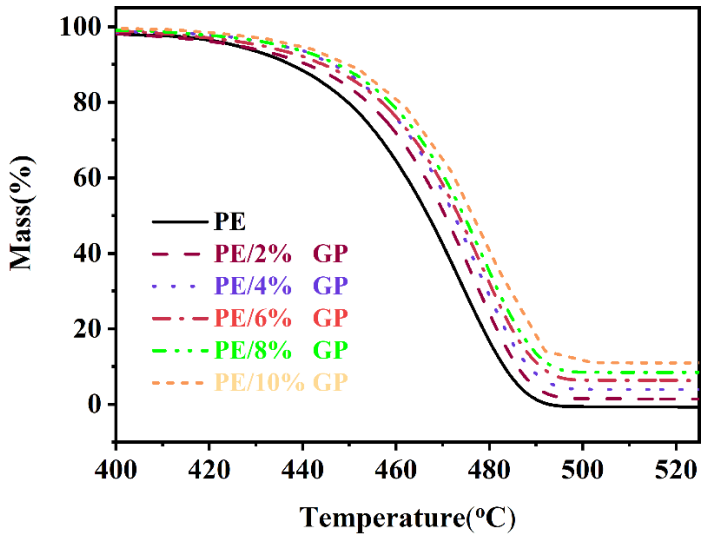

Fig.S3 TGA curves of the PE and PE/GP composites with different contents

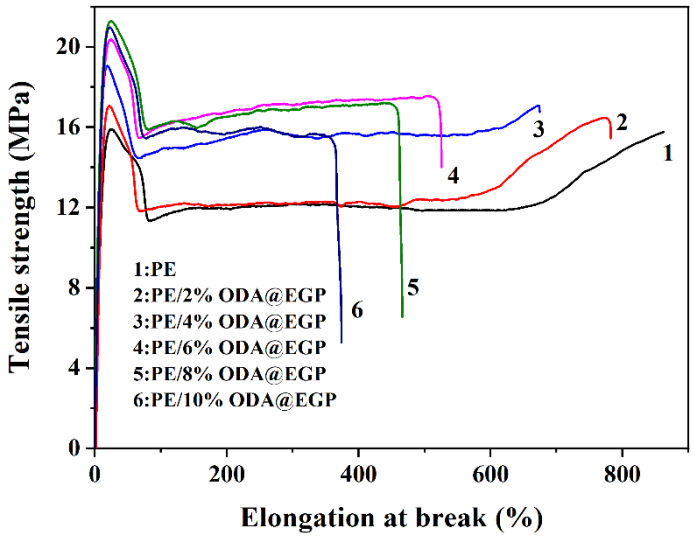

Fig.S4 Stress-strain curves of PE/ODA@EGP composites with different filler amounts

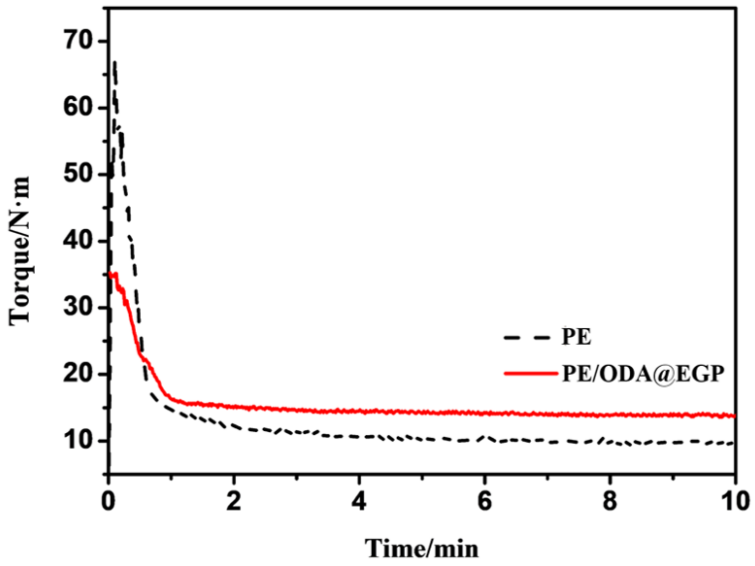

Fig.S5 The rheological curves of PE/ODA@EGP composites

Table S1. DSC and TGA data of the PE and PE/GP composites.

Sample	T_c (°C)	T_m (°C)	χ_c (%)	T_5(°C)	T_{50}(°C)
PE	110.67	132.41	40.96	425.6	466.8
PE/2 wt% GP	111.96	133.51	42.32	426.1	470.5
PE/4 wt% GP	112.42	133.57	43.31	430.6	474.5
PE/6 wt% GP	112.49	133.60	44.21	431.3	477.4
PE/8 wt% GP	112.53	133.82	44.26	435.2	479.6
PE/10 wt% GP	112.69	134.60	44.56	436.9	483.8