
Article

Thermal stability, flammability and mechanical performances of unsaturated polyester-melamine resin blends and of glass fibre-reinforced composites based on them

Latha Krishnan¹, Baljinder K Kandola^{1*}, Dario Deli^{1,2} and John R Ebdon¹

¹ Institute for Materials Research and Innovation, University of Bolton, Deane Road, Bolton, BL3 5AB, UK

² Present address: Romer Labs UK Ltd, The Heath Business & Technical Park, Runcorn, WA7 4QX, UK

* Correspondence: B.Kandola@bolton.ac.uk; Tel.: +44-1204903517

Supplementary data

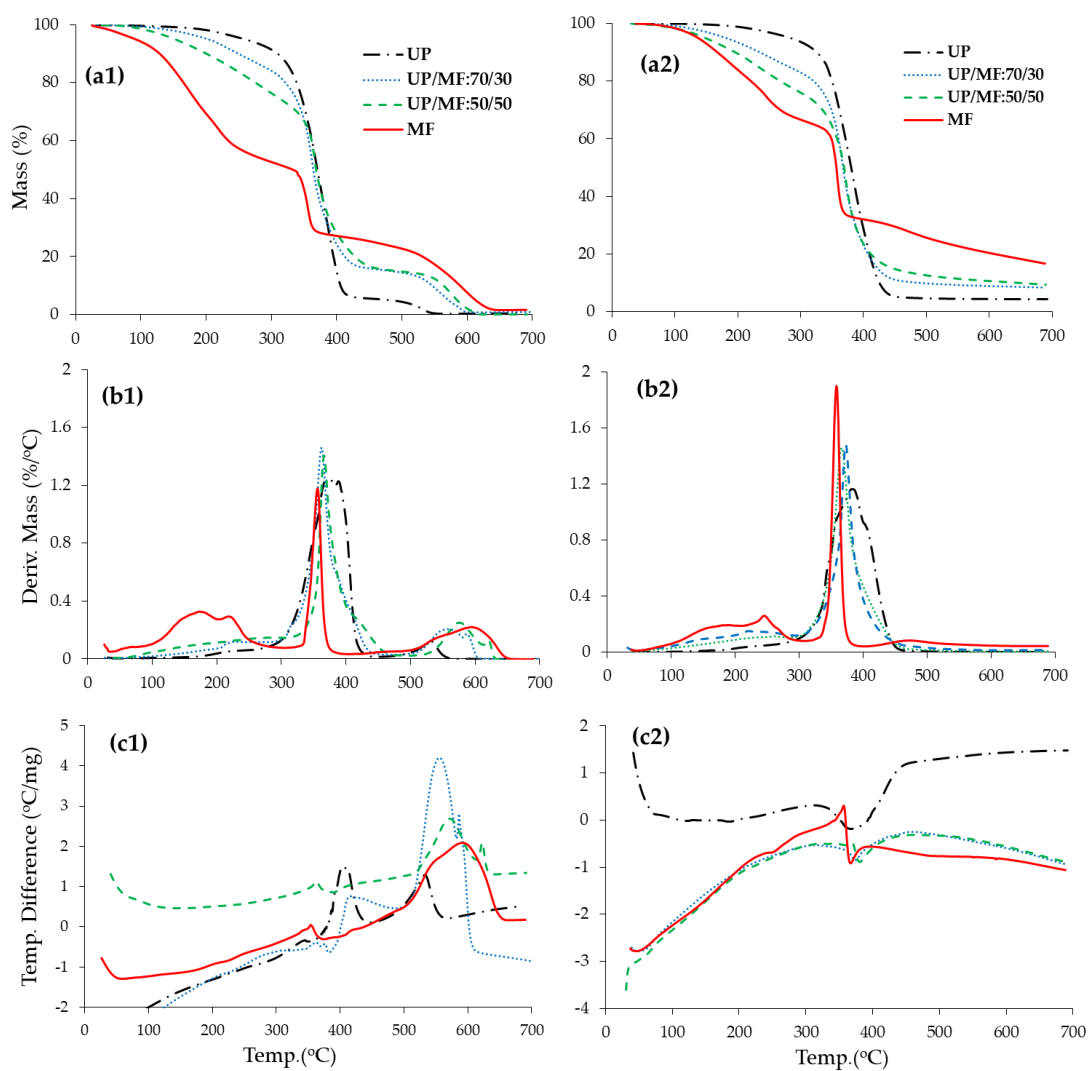


Figure S1. (a1), (a2) TGA curves and (b1), (b2) Derivative weight loss curves and (c1), (c2) DTA curves of cured UP, MF resin and their blends; (a1–c1) in air and (a2–c2) in nitrogen

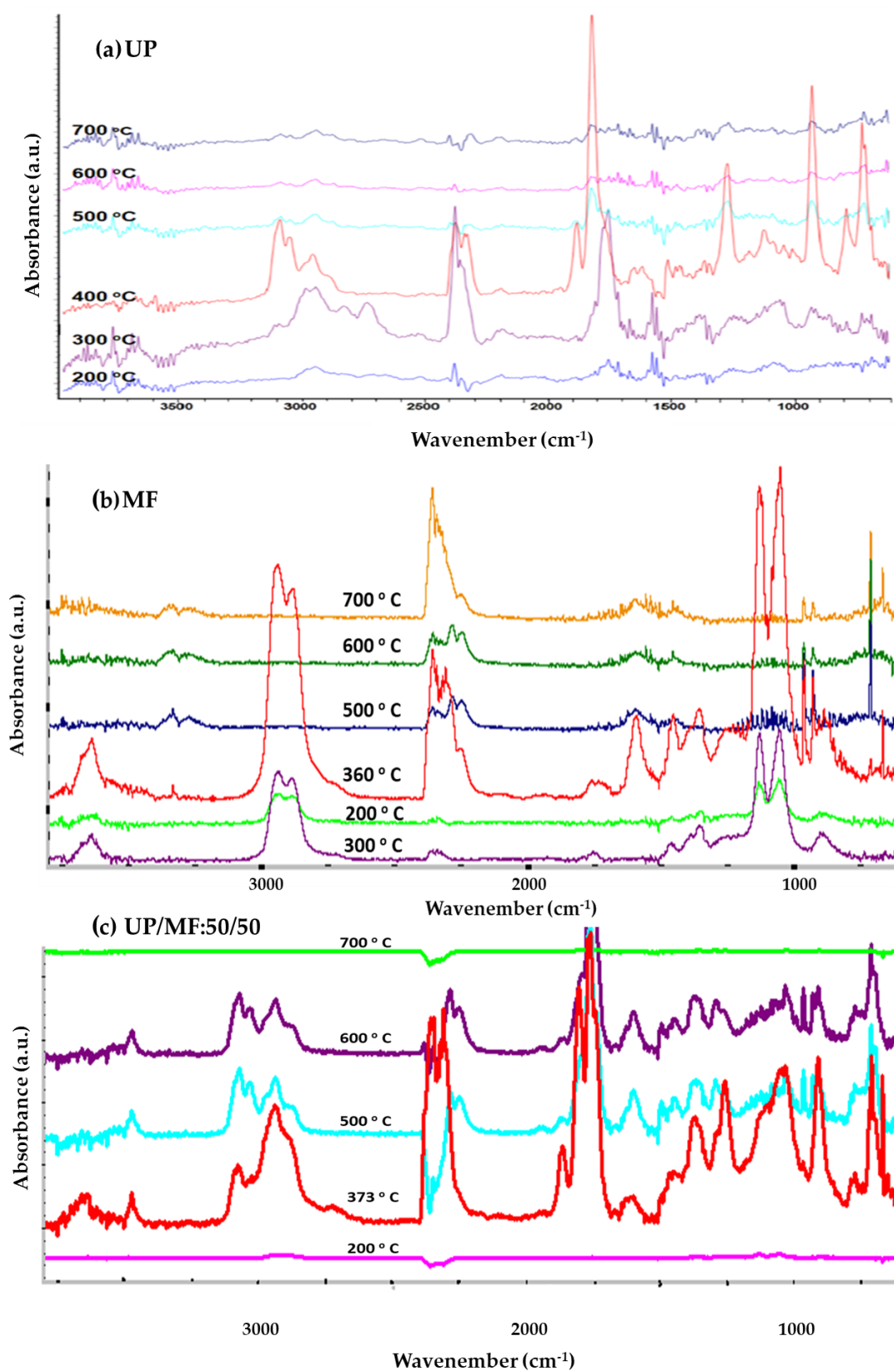


Figure S2. FTIR spectra of evolved gases in nitrogen: (a) UP, (b) MF and (c) UP/MF:50/50 at different temperatures

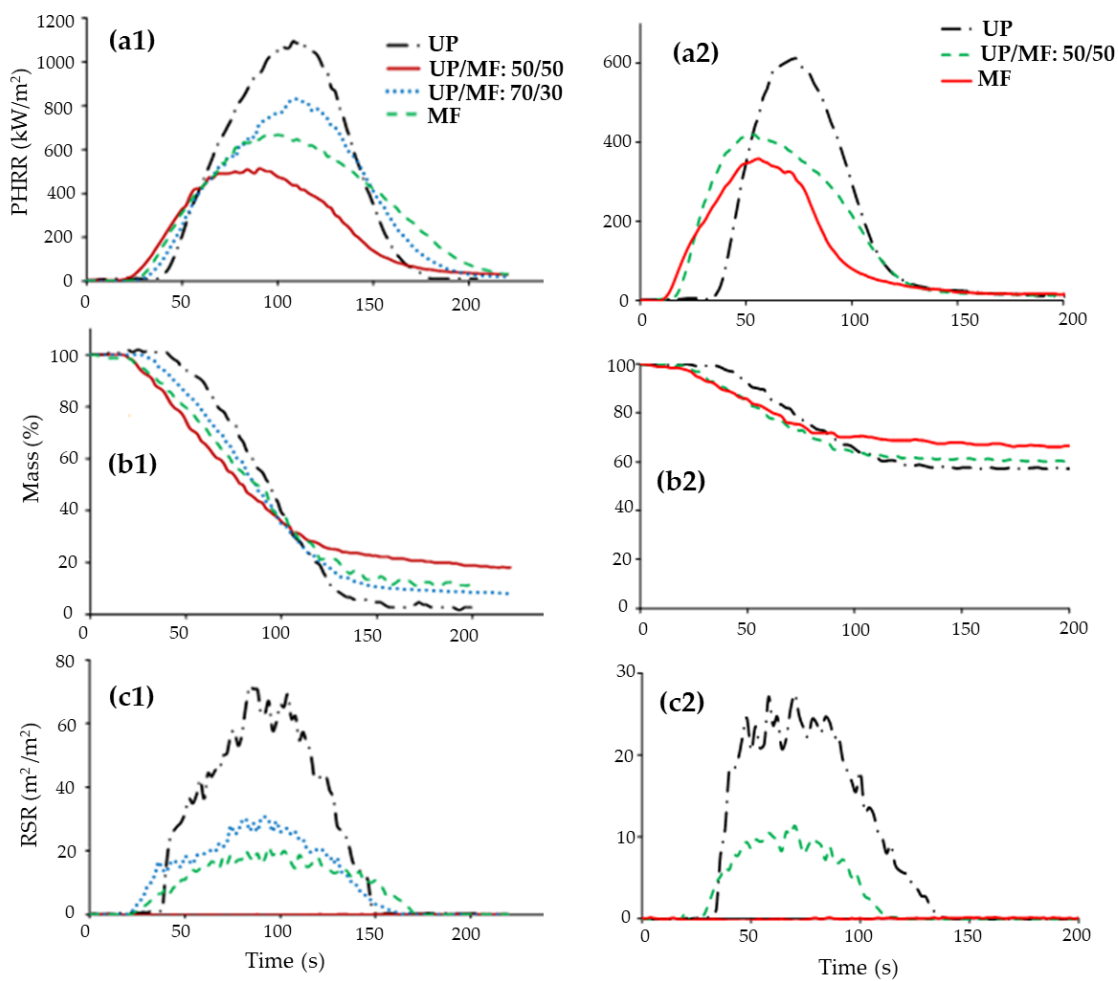


Figure S3. Plots of (a1,a2) HRR; (b1, b2) mass loss and (c1,c2) RSR *vs.* time for UP, MF and UP/MF:50/50 (a1–c1) cast reins and (a2–c2) GFRC samples at 50 kW/m² external heat flux