Supplementary Materials

Scalable MXene and PEDOT-CNT Nanocoatings for Fibre-Reinforced Composite De-Icing

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2.2. Coating preparation

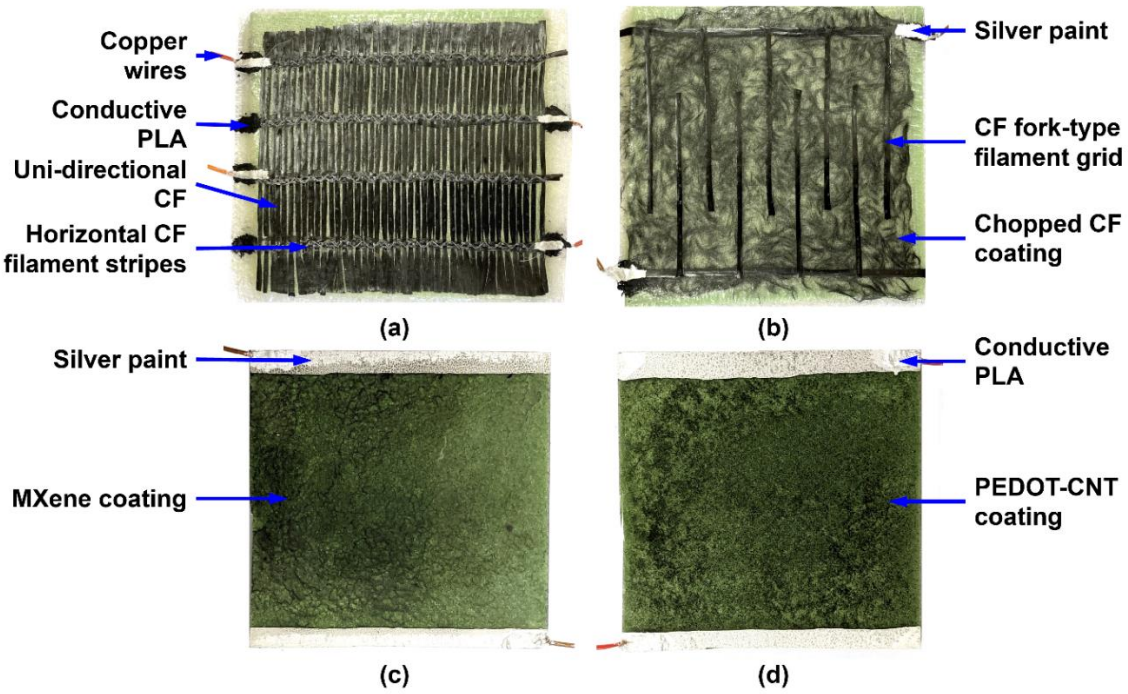

Figure S1. Sandwich structured GFRP composite samples coated with: (**a**) unidirectional CF; (**b**) chopped CF; (**c**) $Ti_3C_2T_z$ MXenes; (**d**) PEDOT-CNT.

2.3. Characterisation and testing

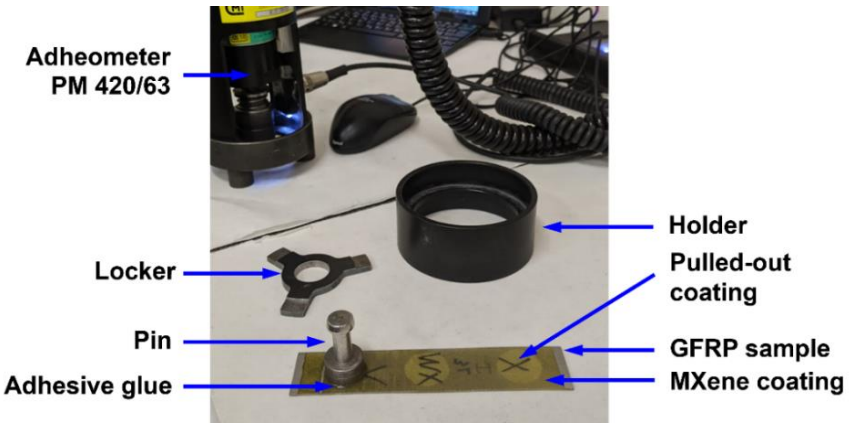

Figure S2. Adhesion test setup.

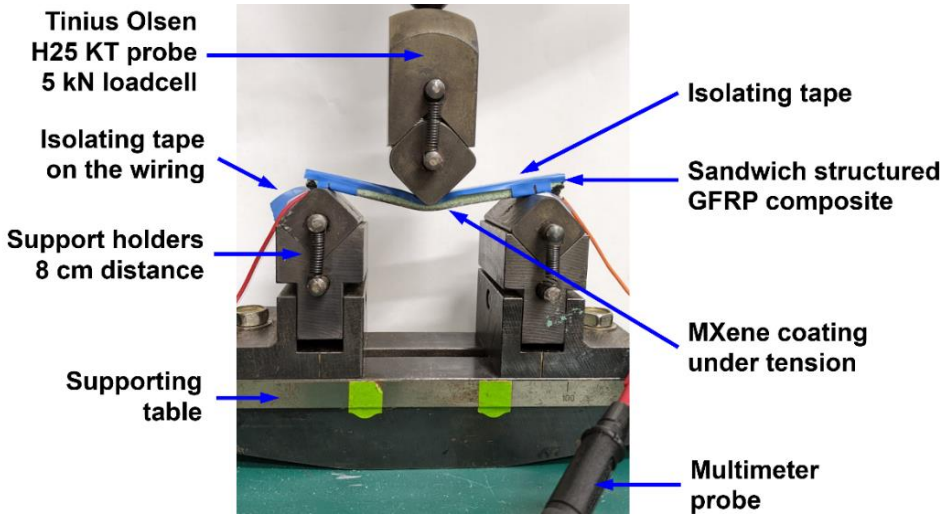

Figure S3. Three-point bending test setup.

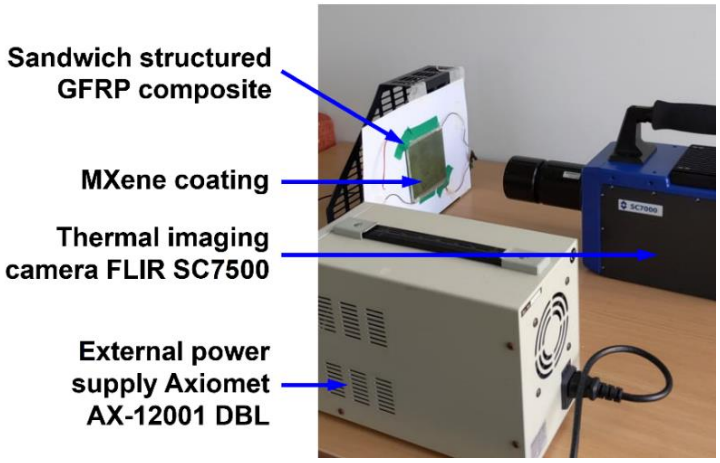

Figure S4. Thermal imaging test setup.

3.4. Thermal imaging and de-icing

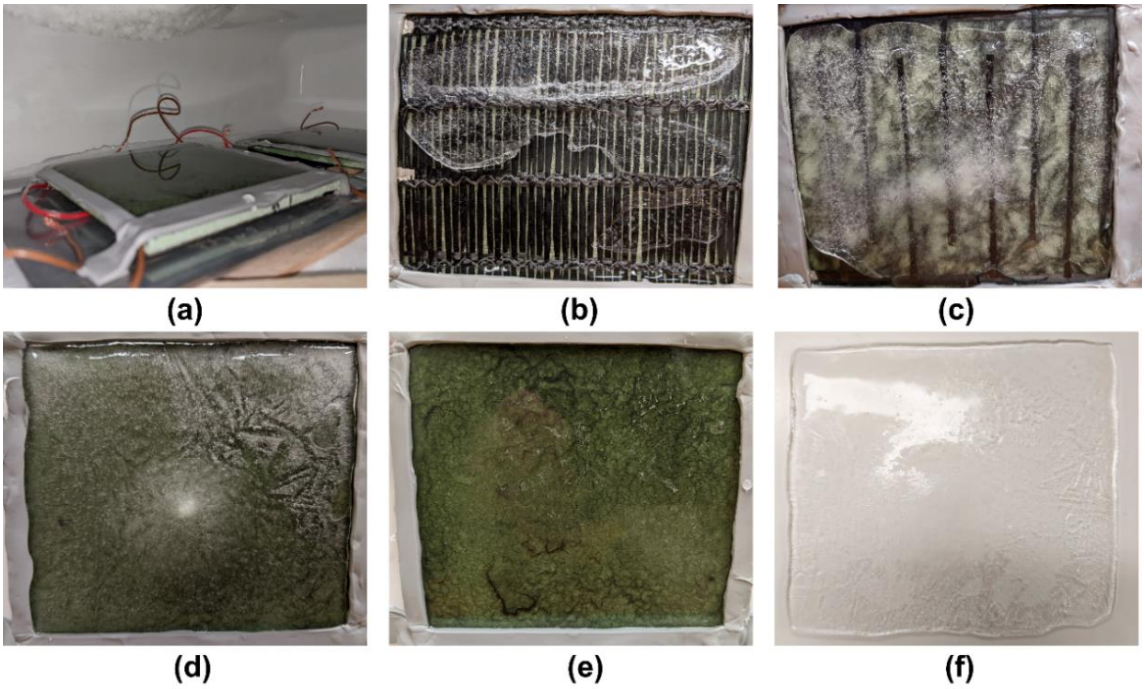

Figure S5. De-icing test: (**a**) ice formation in a -15 °C freezer (horizontal). De-icing (vertically positioned sample) at room temperature under 7.44 W power of: (**b**) unidirectional CF coating after 12 min of heating; (**c**) chopped CF coating after 7 min; (**d**) MXene coating after 1 min; (**e**) a fully de-iced MXene coating after 5 min; (**f**) detached ice after 5 min of MXene coating.