## Supplementary electronic materials

## Electrical current map and bulk conductivity of carbon fiber reinforced nanocomposites

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**Figure S1.** a) Resin thick film distribution; b) Preform on the thick resin film; c) Breather/bleeder around the preform; d) Laminated panels in autoclave; e) Squeezing of resin and final result; f) Final Panel (E2).



Figure S2. FESEM images of the nanocomposite TBD+5%GPOSS+0.5%MWCNT (formulation E).



Figure S3. EDX images of the nanocomposite TBD+5%GPOSS+0.5%MWCNT (formulation E).



Figure S4. FESEM images of the panel E2 (on the left side) and panel E1 (on the right side).



**Figure S5.** FESEM images of the panel E1.



Figure S6. FESEM images of the panel E3.



**Figure S7.** TUNA micrographs (Height, Deflection Error, Friction, TUNA Current profiles in 3D) of the etched panel E1.



**Figure S8.** TUNA micrographs (Height, Deflection Error, Friction, TUNA Current profiles in 3D) of the non-etched panel E1.



**Figure S9.** TUNA micrographs (Height, Deflection Error, Friction, TUNA Current profiles in 3D) of the etched panel E2.



**Figure S10.** TUNA micrographs (Height, Deflection Error, Friction, TUNA Current profiles in 3D) of the non-etched panel E2.



**Figure S11.** TUNA micrographs at higher magnification (Height, Deflection Error, Friction, TUNA Current profiles in 3D) of the etched panel E2.



**Figure S12.** TUNA micrographs (Height, Deflection Error, Friction, TUNA Current profiles in 3D) of the etched panel E3.



**Figure S13.** TUNA micrographs (Height, Deflection Error, Friction, TUNA Current profiles in 3D) of the non-etched panel E3.