

Supporting information

# Anti-ballistic performance of PPTA/UHMWPE laminates

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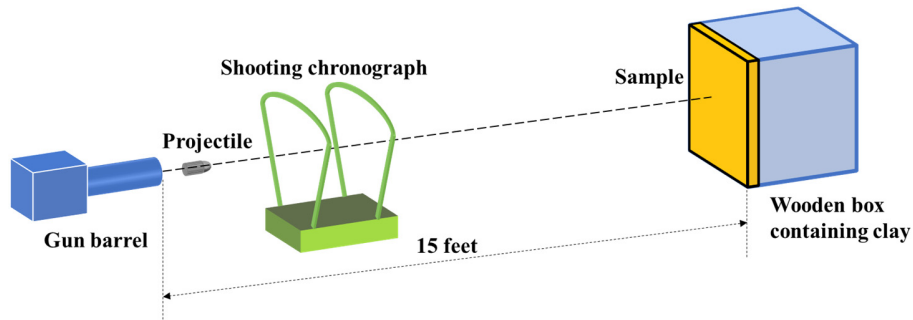
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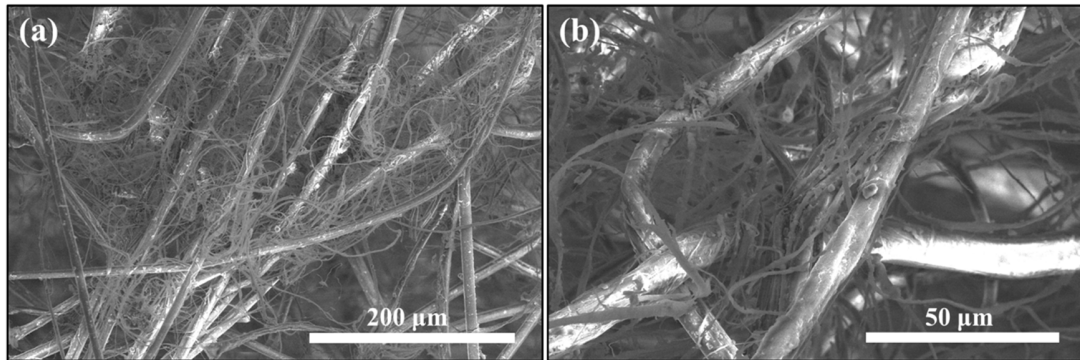
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**Table S1.** Comparison of the properties of PPTA fabric and UHMWPE film.

Properties	PPTA fabric	UHMWPE film
Density (g cm <sup>-3</sup> )	1.44	0.94
Tensile modulus (GPa)	59 - 124	0.2 - 1.2
Tensile strength (MPa)	2760	20 - 40
Coefficient of thermal expansion (×10 <sup>-6</sup> K <sup>-1</sup> )	-2 Along Axis	130 - 200
Specific heat (J K <sup>-1</sup> kg <sup>-1</sup> )	1400	1900
Thermal conductivity (W m <sup>-1</sup> K <sup>-1</sup> )	0.04 @23°C	0.42 – 0.51 @ 23°C
Upper working temperature (C)	180 - 245	55 - 95



**Figure S1.** Schematic of the experimental setup for the ballistic testing.



**Figure S2.** SEM images of the PPTA fibers captured on the exit side of the laminate sample (u)PE(9)-(5)KF(8) around a completely penetrated hole.