

Supplementary Material

Hot-melt adhesive bonding of polyurethane/fluorinated polyurethane/alkylsilane-functionalized graphene nanofibrous fabrics with enhanced waterproofness, breathability, and mechanical properties

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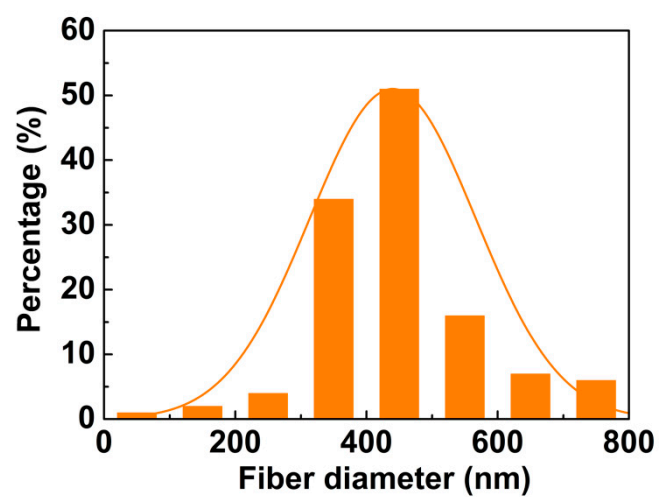


Figure S1. Diameter distribution diagram of PU/FPU/TPU-50/FG-0.5. nanofiber WB fabric

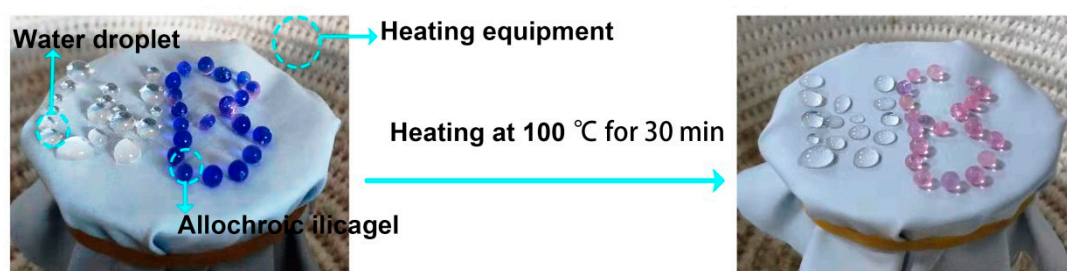


Figure S2. Demonstration waterproofness and breathability of PU/FPU/TPU-50/FG-1.5 WB fabric.

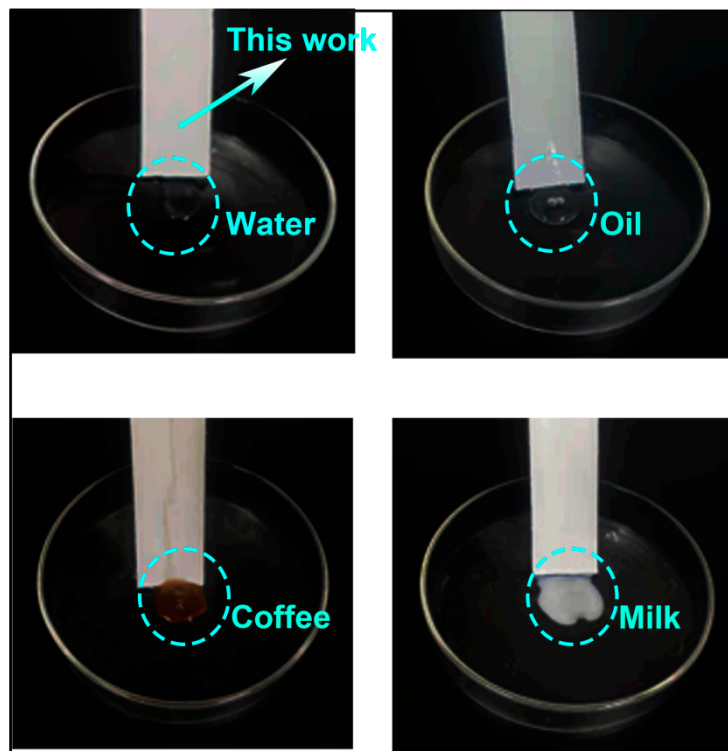


Figure S3. Lyophobic property of PU/FPU/TPU-50/FG-1.5 WB fabric.

Table S1. Washing fastness of the PU/FPU/TPU-50/FG-1.5 fabric, the data was obtained after 50 times washing by drum washing machine.

Samples	Hydrostatic pressure	WVRT	Tensile stress
	(kPa)	(kg m ⁻² d ⁻¹)	(MPa)
PU/FPU/TPU-50/FG-1.5	78.6±3.0	8.3±0.5	119.64±2.5

Samples	WCA	Air permeability	Strain
	(°)	(mm s ⁻¹)	(%)
PU/FPU/TPU-50/FG-1.5	140.1±2.5	10.6±1.5	68.5±2.0

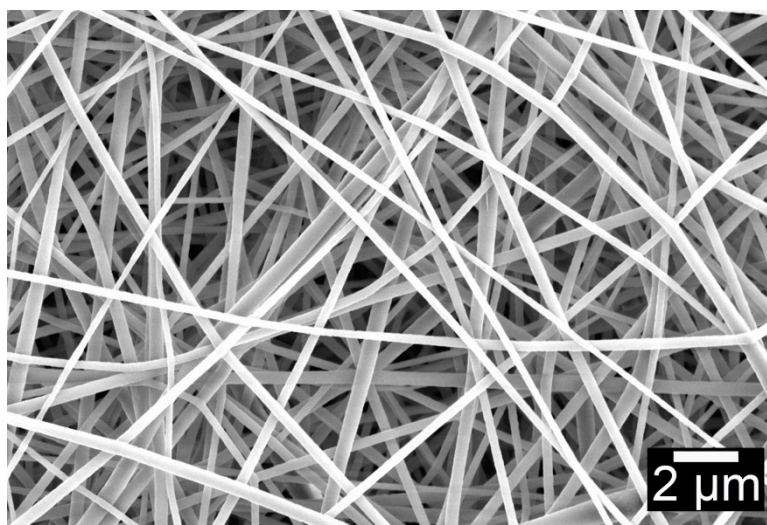


Figure S4. (a) SEM image of the PU/FPU/TPU-50 membranes at a hot-press temperature of 80 °C.

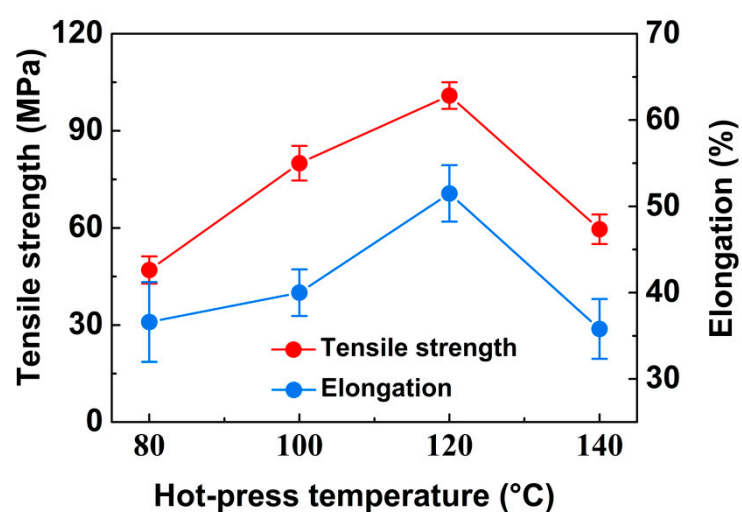


Figure S5. Tensile strength and elongation of the PU/FPU/TPU-50 nanofiber WB fabric at different heating temperatures.

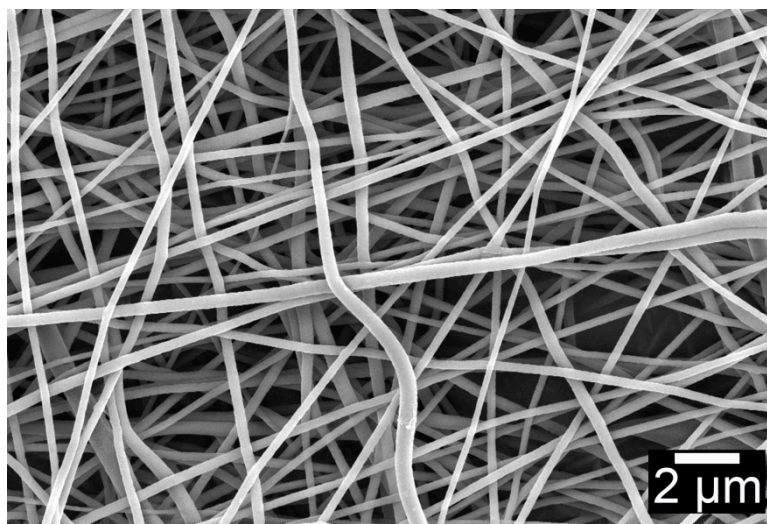


Figure S6. SEM image of the PU/FPU membranes at a hot-press temperature of 120 °C.