

# Supporting Information

## One-Piece Triboelectric Nanosensor for Self-Triggered Alarm System and Latent Fingerprint Detection

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**Table 1** Triboelectric Series

Insulator name	Charge affinity (nC/J)	Notes
PTFE (Teflon)	-190	Surface is fluorine atoms- -very electronegative.
EDPM rubber, filled	-140	Slightly conductive. (40 T ohm cm).
Butyl rubber, filled	-135	Conductive. (900 M ohm cm). Test was done fast.
Hypalon rubber, filled	-130	Slightly conductive. (30 T ohm cm).
Santoprene rubber	-120	
Epichlorohydrin rubber, filled	-118	Slightly conductive. (250 G ohm cm).
Viton, filled	-117	Slightly conductive. (40 T ohm cm).
Latex (natural) rubber	-105	
PVC (rigid vinyl)	-100	
Neoprene (polychloroprene, not SBR)	-98	Slightly conductive if filled (1.5 T ohm cm).
Office tape backing	-95	
UHMWPE	-95	
Cellulose nitrate	-93	
Olefins (alkenes): LDPE, HDPE, PP	-90	UHMWPE is below.
Carton-sealing tape (BOPP)	-85	Raw surface is very +, but close to PP when sanded.
Vinyl: flexible (clear tubing)	-75	
Silicones (air harden & thermoset, but not GE)	-72	
Polystyrene	-70	
Polyimide	-70	
Hot melt glue	-62	
Gum rubber	-60	Barely conductive. (500 T ohm cm).
EVA rubber for gaskets, filled	-55	Filled rubber will usually conduct.
PET (mylar) cloth	-40	
PET (mylar) solid	-40	
Solvent-based spray paints	-38	May vary.
Styrene-butadiene rubber (SBR, Buna S)	-35	Sometimes inaccurately called "neoprene" (see below).
Epoxy (circuit board)	-32	
Acrylic (polymethyl methacrylate)	-10	
Polycarbonate	-5	
ABS	-5	
Wool	0	
Nitrile rubber	3	
Cotton	5	Slightly conductive. (Depends on humidity).

