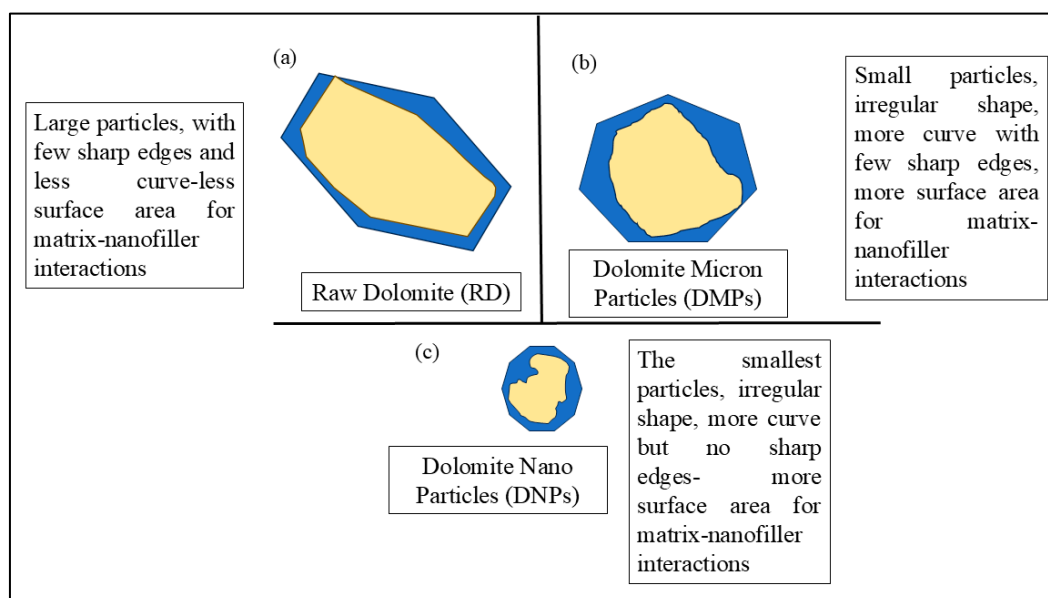
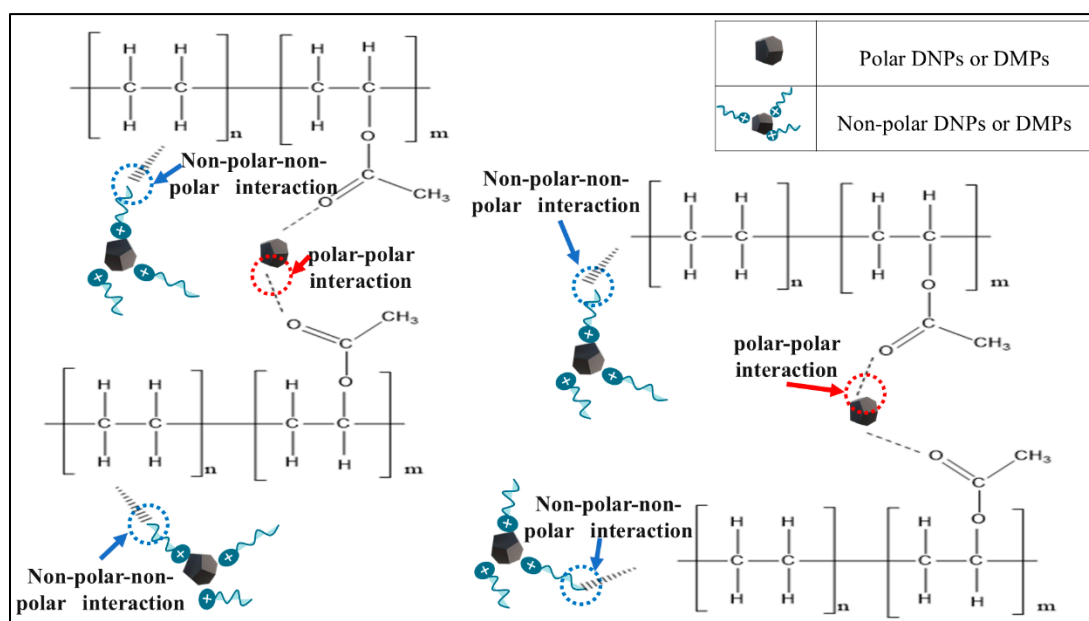


**Figure S1.** TEM micrographs of (a) DNPs with the measured length and width and (b) platy/sheet-like particles of DNPs with a very small thickness (less than 100 nm).



**Figure S2.** Illustration of (a) RD, (b) DMPs), and (c) DNPs structure in PEVAc matrix.



**Figure S3.** The illustration of the interaction between DMPs or DNPs and PEVAc copolymer.

**Table S1.** The single factor ANOVA result of tensile strength (TS), elongation at break (EAB), tensile toughness (TT) and Young's modulus (YM)

Sample	Source of Variation	SS	df	MS	F	P-value	F crit	
TS	Between Groups	29.00442	3	9.668141	57.8712	9.1E-06	4.066181	significant
EAB	Between Groups	24225.2	3	8075.068	9.201832	0.005679	4.066181	Not significant
TT	Between Groups	442.366	3	147.4553	50.07865	1.57E-05	4.066181	significant
YM	Between Groups	0.244815	3	0.081605	40.06061	3.64E-05	4.066181	significant

*SS= sum of square, df=degree of freedom, MS=mean square, F=F-value*