

## Supplementary Material

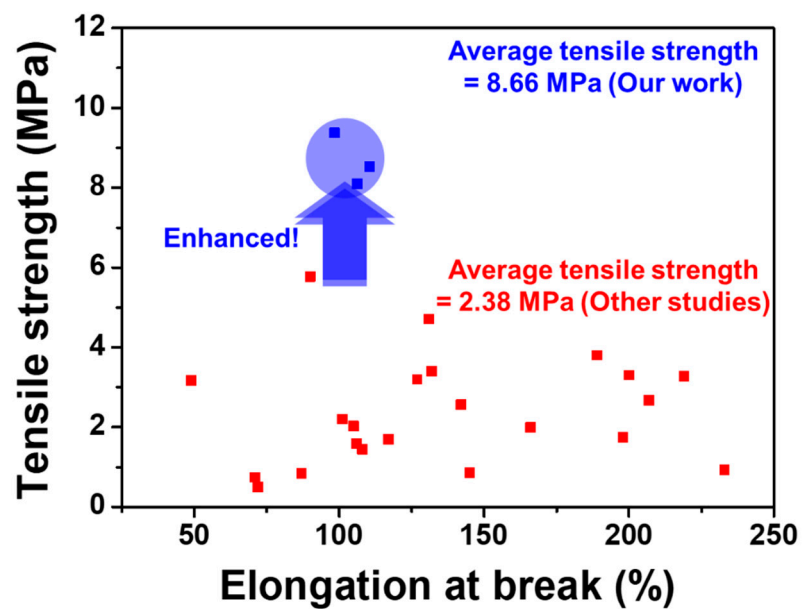
# Preparation of Non-Isocyanate Polyurethanes from Mixed Cyclic-Carbonated Compounds: Soybean Oil and CO<sub>2</sub>-Based Poly(ether carbonate)

**Table S1.** Examples of CSBO-based NIPU

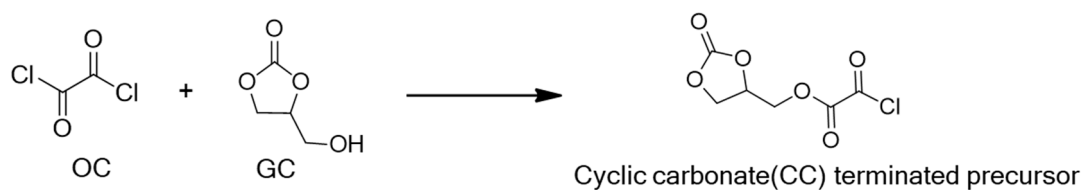
Amine	[CC]:[NH <sub>2</sub> ]	Tensile strength (MPa)	Elongation at break (%)	Reference
1,2-ethylenediamine	1:0.5	0.49	72	[1]
	1:1	5.77	90	
	1:2	1.75	198	
1,4-butylenediamine	1:0.5	0.84	87	
	1:1	4.71	131	
	1:2	3.28	219	
1,6-hexamethylenediamine	1:0.5	0.74	71	
	1:1	3.80	189	
	1:2	2.67	207	
3-aminopropyl-terminated poly(ethylene glycol)	-	3.17	49	[2]
1,9-nonanediamine	1:1	3.40	132	[3]
1,13-tridecanediamine	1:1	3.20	128	
Diethylene glycol bis(3-aminopropyl) ether	1:0.5	0.85	145	[4]
Priamine <sup>TM</sup> 1074	1:0.5	0.92	233	[5]
1,8-Menthane diamine	1:0.8	1.45	108	
	1:1	2.20	101	
	1:1.2	1.59	106	
4,4-diaminodiphenyl methane	1:0.8	1.69	117	[6]
	1:1	2.56	142	
	1:1.2	2.02	105	
4,4-diaminodiphenyl disulfide	1:1	1.99	166	[7]
m-Xylylenediamine	1:1	3.3	200	[8]

## References of Table S1

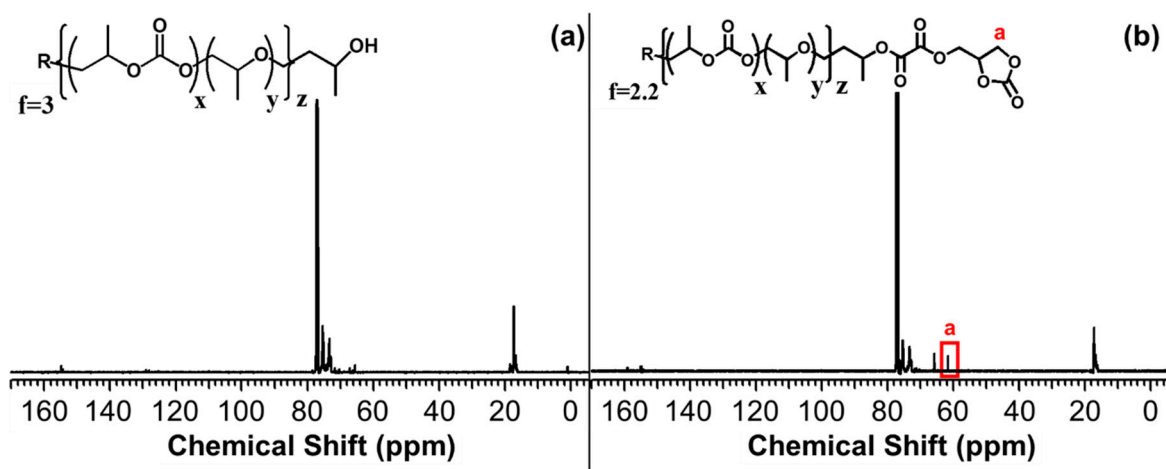
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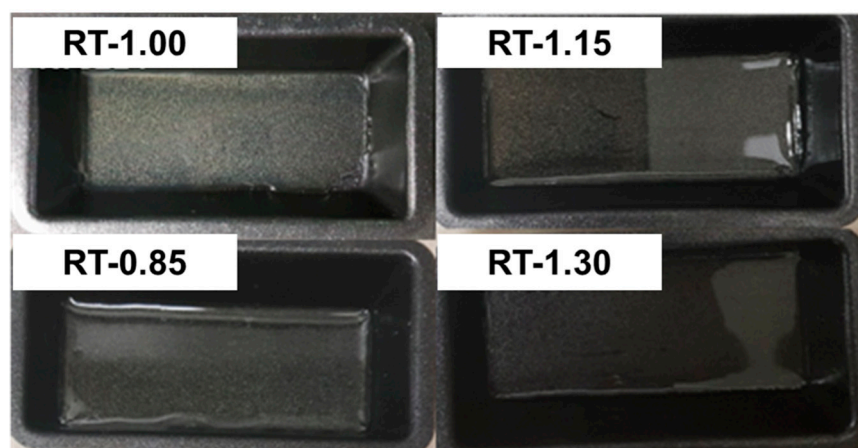
**Figure S1.** Tensile strength and elongation at break comparison of CSBO-based NIPU : Our work versus previous studies.



**Figure S2.** Schematic representation of the preparation of five-membered CC precursor.



**Figure S3.**  $^{13}\text{C}$  NMR spectra of PEC polyol (a) and RCC (b).



**Figure S4.** Visual appearances of RTs in iron mold.