type of biodegradable plastic	CNF Concen tration (%)	Tensile Strength (MPa)	Tensile Stroke (mm)	Elasticity (MPa)	Bending Strength (MPa)	Bending Stroke (mm)
polycaprolactone (PCL)	0	2				
PCL composite with CNF	23	8.5				
starch based plastic	0	8				
starch based plastic composite with CNF	23	19.5				
starch + PBAT based plastic	0	11	198	258.7		
starch + PBAT based plastic composite with CNF	25	24	4.2	1640		
starch + PLA based plastic	0	29	2.4	1869	42.7	4.8
starch + PLA based plastic composite with CNF	23	34	1.3	3567	59	3
Poly buthylene succinate (PBS)	0	38				
PBS composite with CNF	26	48				
Poly Lactic Acid (PLA)	0	62				
PLA composite with CNF	23	69				
poly(butylene adipate-co- terephthalate) (PBAT)	0	12				
PBAT composite with CNF	23	18.5				
polyhydroxyalkanoate (PHA)	0	16				
PHA composite with CNF	30	24.5				