

*Article*

# The Impact of Vegetable Fibers on the Shrinkage and Mechanical Properties of Cob Materials

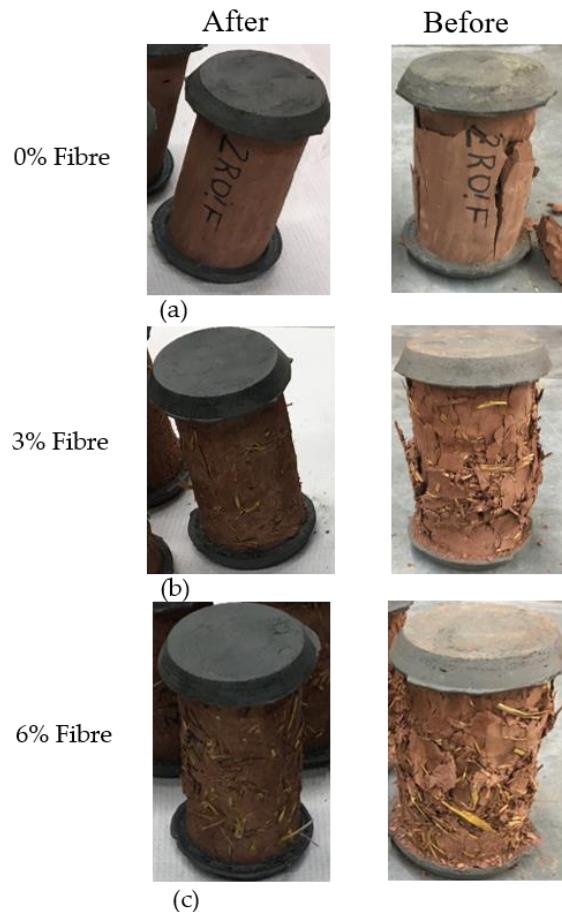
Aguerata Kabore \* and Claudiane M. Ouellet-Plamondon

Department of Construction Engineering, Ecole de Technologie Supérieure, 1100 Notre-Dame Street, Montreal, QC H3C 1K3, Canada; claudiane.ouellet-plamondon@etsmtl.ca

\* Correspondence: aguerata.kabore.1@ens.etsmtl.ca

## SUPPLEMENTARY INFORMATION

---



**Figure S1.** The condition of the samples after and before compression testing.



**Figure S2.** Condition of the samples after and before flexural testing.

#### ANOVA and t-TEST

**Table S1.** Influence fibres on compressive strength.

ANOVA - Significant difference observed.

Time (days)	Groups (fibre)	Count	Average	Stand. dev.	Variance	P-value
28	0	6	1.72	0.09	0.06	<b>5.03E-11</b>
	3	6	2.13	0.09	0.04	
	6	6	4.59	0.03	0.16	
120	0	6	1.40	0.19	0.023	<b>8.61E-10</b>
	3	6	2.15	0.17	0.058	
	6	6	3.91	0.19	0.182	

**Table S2.** Effect of time on mechanical properties.

t-TEST- Significant difference observed.

Clay	Compressive strength		Flexural strength	
	Red	Beige	Red	Beige
Mean	2.81	2.49	0.83	1.25
Variance	1.77	1.25	0.08	0.05
Observations	18	18	18	18
P-value		0.008		8.62E-05

**Table S3.** Influence fibres on flexural strength.

ANOVA A- Significant difference observed.

Time (days)	Groups (fibre)	Count	Average	Stand. dev.	Variance	P-value
28	0	6	1.10	0.23	0.08	<b>0.009</b>
	3	6	0.71	0.21	0.06	
	6	6	0.67	0.10	0.02	

ANOVA B- Non-significant difference observed.

Time (days)	Groups (fibre)	Count	Average	Stand. dev.	Variance	P-value
120	0	6	1.16	0.17	0.06	<b>0.17</b>
	3	6	1.21	0.12	0.02	
	6	6	1.39	0.14	0.05	