

# Agro-waste-derived foams as sustainable alternatives to wood-based fibers

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**WOOD FIBERS  
(K)**



**HEMP SHIVE  
(H50 and H100)**



**SUGAR BEET PULP  
(B50 and B100)**



**Sustainable**  
Utilization of  
agricultural residues

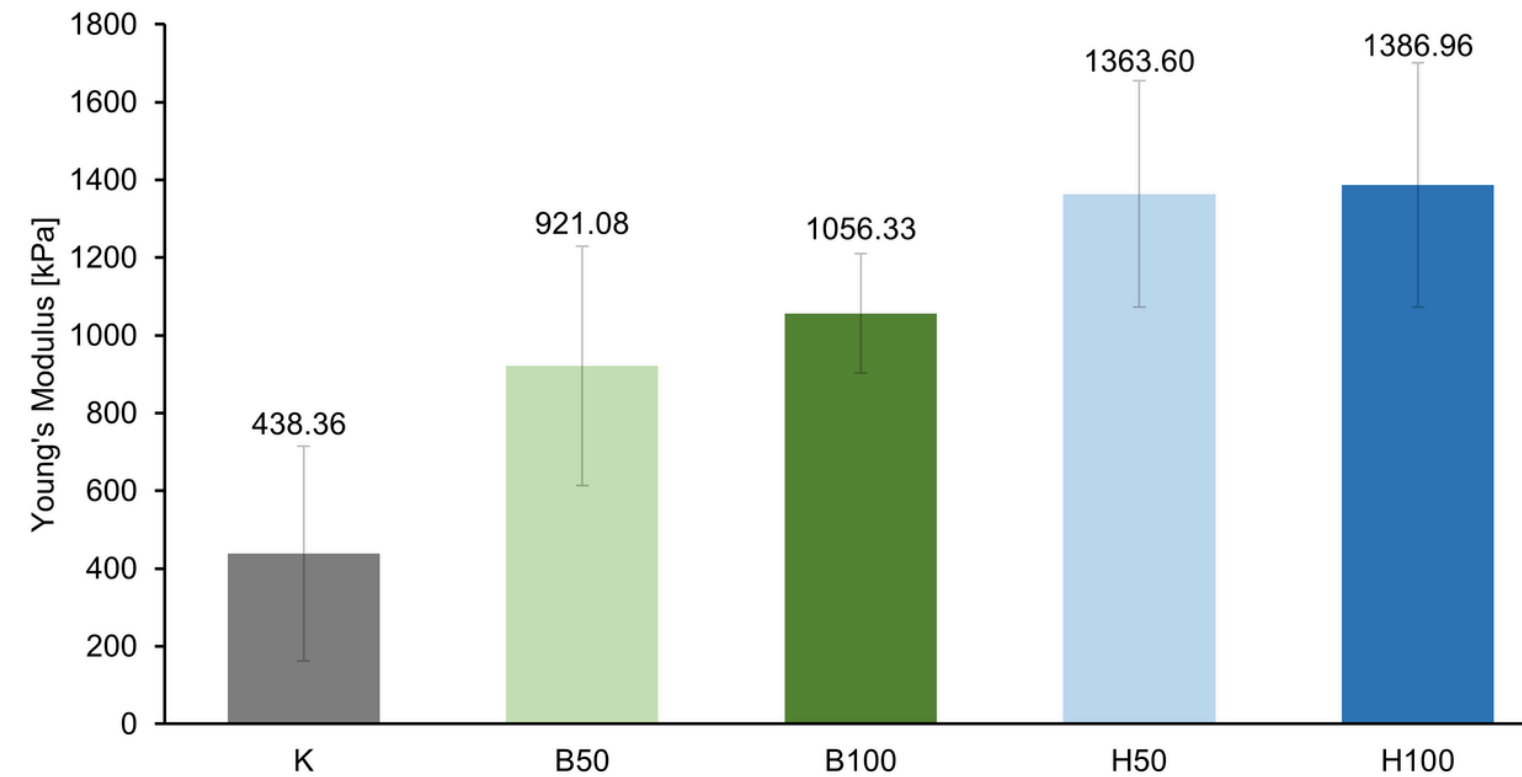


**Resource-efficient**  
Reducing reliance on  
raw wood

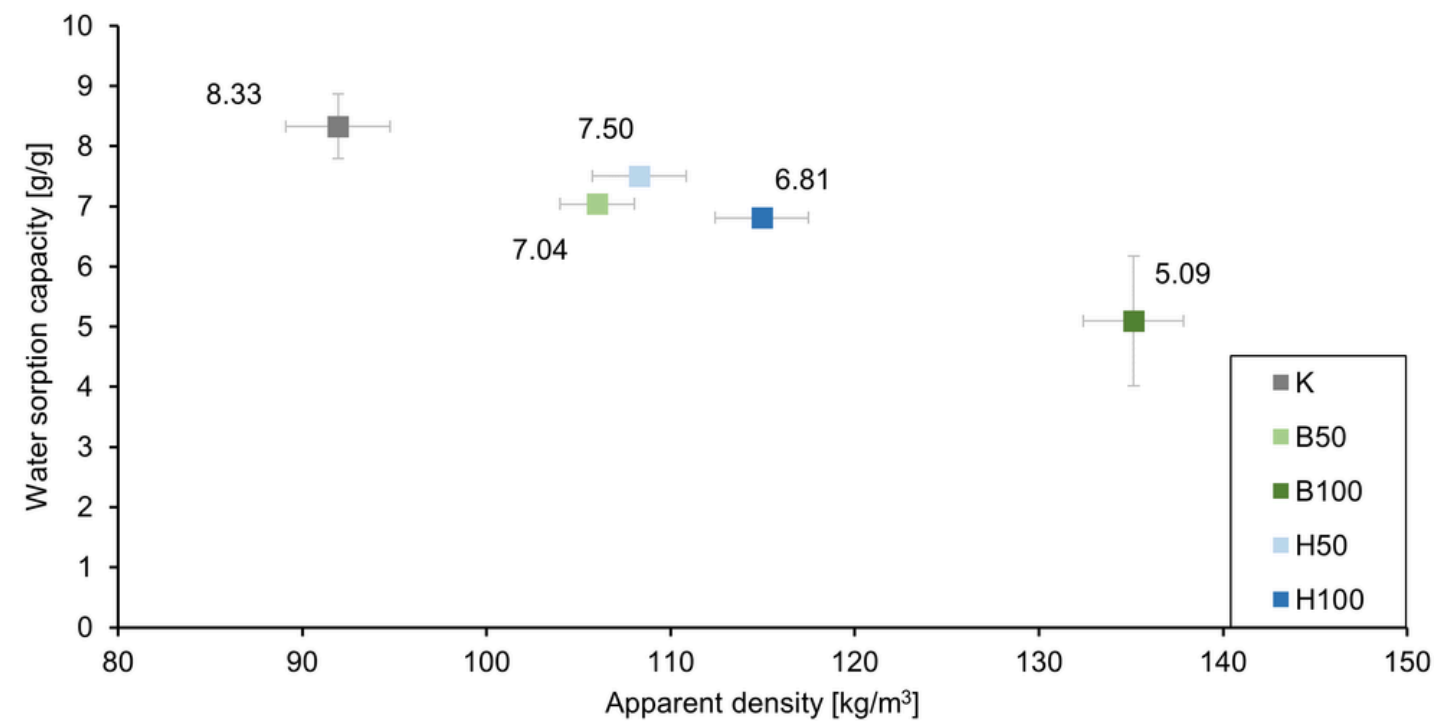


**High-performance**  
Maintaining key  
functional properties

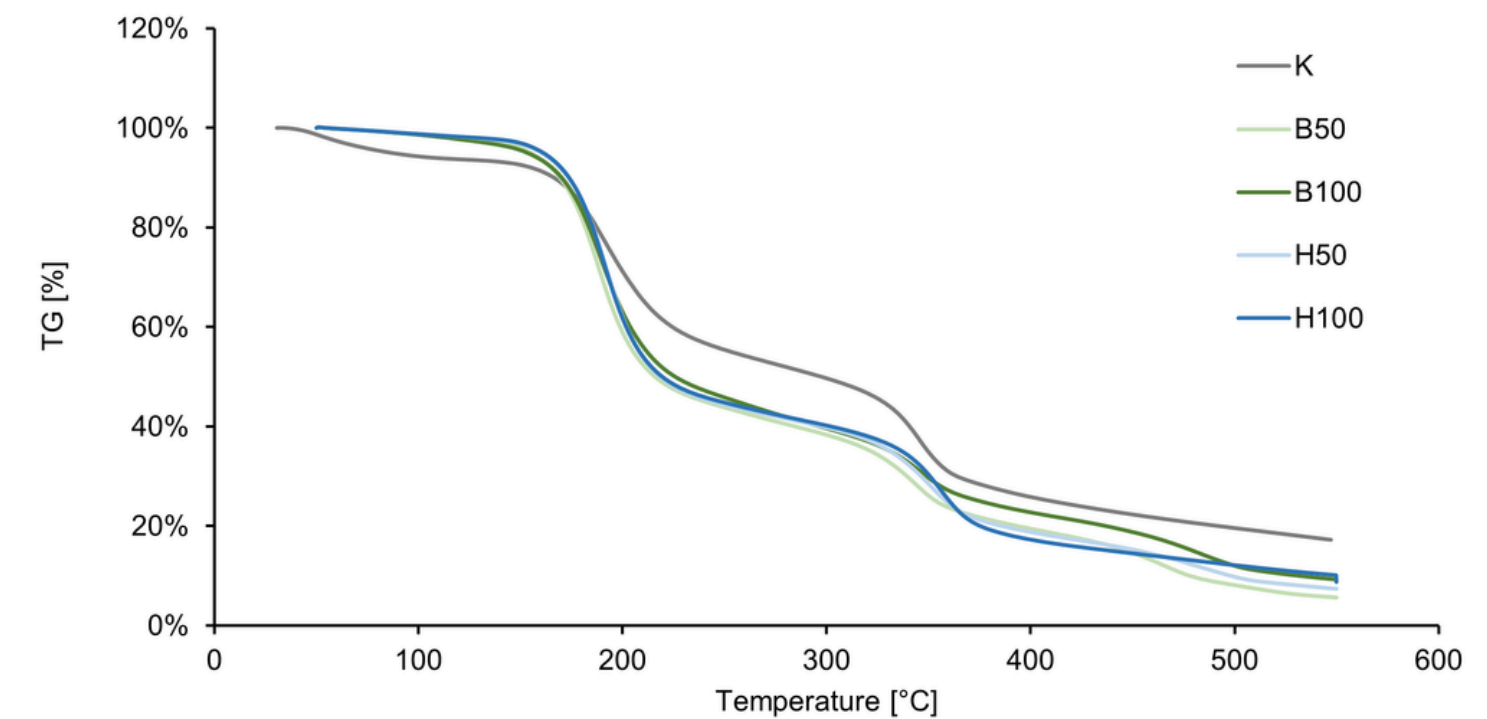
## YOUNG'S MODULUS



## WATER SORPTION CAPACITY VS DENSITY



## THERMAL STABILITY (TGA)



## POROSITY



**90-93%**  
for all foams

## STIFFNESS



**438 → 1387 kPa**  
increase of over 3x

## WATER SORPTION



**8.33 → 5.09 g/g**  
lowered water uptake

## THERMAL STABILITY



**No significant  
differences**

Agro-waste-based foams can be an alternative to wood-based foams.

# Thank you!

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