



Carbon-negative decking could lock up CO₂

Slide by Neil Goalby. Available from rsc.li/3WeolAG

A new composite decking material reduces carbon emissions throughout its lifespan compared to traditional wooden boards. The composite contains a type of reinforcement filler produced by reacting a natural material called lignin with carbon dioxide. Up to 4% by weight of the filler is trapped CO₂. The filler is combined with a high-density poly(ethene) matrix to make the decking.

If all US decking sales were replaced with this carbon-negative composite, over 230,000 tonnes of CO₂ could be sequestered annually.



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Decking could be used to capture over 230,000 tonnes of CO₂

Questions

1. Name the two types of material that make up this composite.
2. Explain why this composite has a carbon negative footprint.
3. Evaluate the use of the new composite material to make decking boards.