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Shadine Taufik · 23h ago · 2 min read

This coating created by NTU protects wood from burning

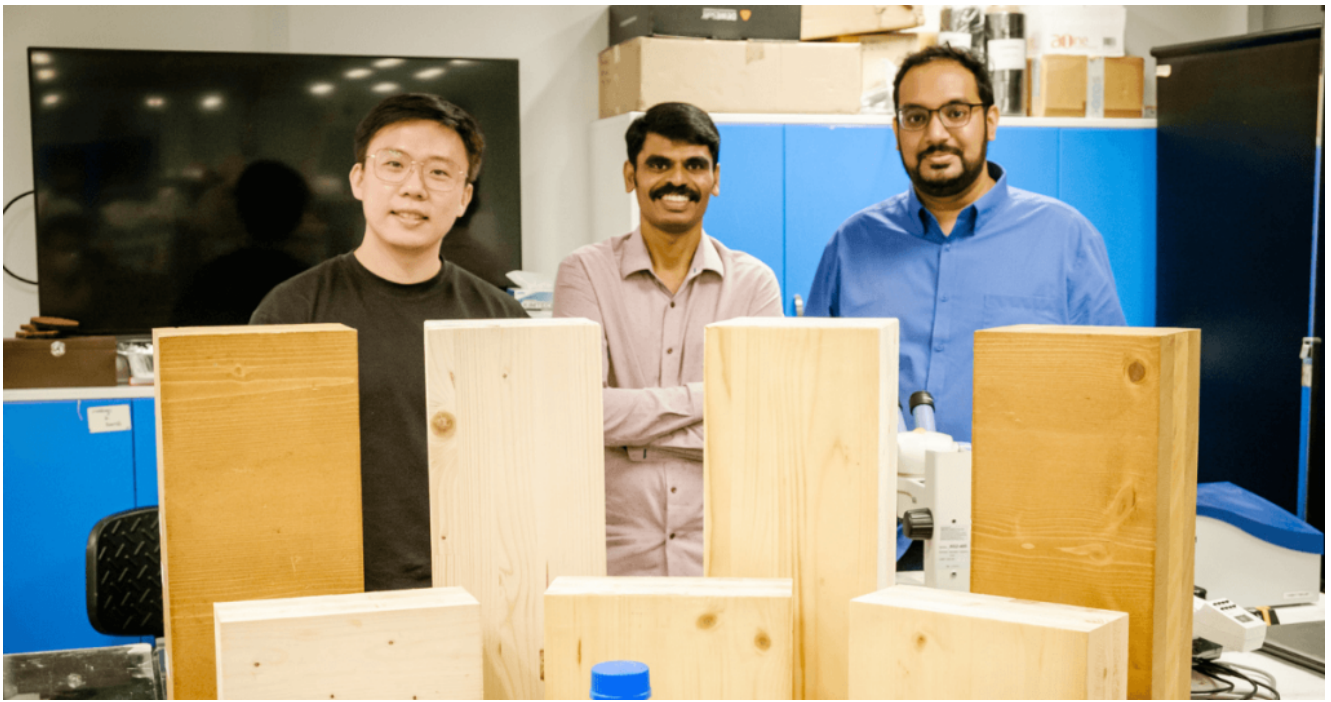
A team of researchers from Singapore's Nanyang Technological University (NTU) has created an invisible coating that can fireproof wood.



Untreated, damaged wood (left) vs. wood covered with the NTU coating after being burnt at 600°C / Photo credit: Nanyang Technological University

Mass-engineered timber – a combustible material – has become increasingly popular in construction due to its low cost. Current methods to combat the flammability of this material include fire-retardant panels or paint-like coatings, which cover up the design on the wood. However, NTU's creation is invisible, 0.075 millimeters thick, and easy to apply.

When set aflame, the material expands to create a char barrier over 30 times its original thickness, preventing the fire from burning the wood – keeping the plank underneath intact.



From left: NTU student Dean Seah, and the co-inventors of the fireproof wood coating Aravind Dasari and Sheik Anees. / Photo credit: Nanyang Technological University

NTU's innovation and enterprise company NTUitive filed a tech disclosure for the invention and funneled S\$250,000 (US\$181,109) into the project through its NTUitive Gap Fund. The firm is also currently exploring licensing opportunities.

The university is in early talks with Singapore's Venturer Timberwork, which may use the coating in one of its current projects. NTU expects the global fire-resistant coating industry to be valued at US\$1.06 billion by 2029.

NTU said Dasari is actively working with industry partners to further test the effectiveness and longevity of his team's invention.