Pine transformed by modern alchemists

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A new world opens for pinewood, here is a door handle made out of the compressed wood. Credit: EPFL+ECAL

Swiss researchers have given pinewood the hardness and smooth touch of precious wood. L'EPFL+ECAL Lab presents the first objects made of this new material in Helsinki today.

Pinewood made denser than ebony, textured and hard likes the pure essence of wood itself? Thanks to a process that reminds one of alchemic essays to turn lead to gold, a team led by Parviz Navi has given simple pinewood similar qualities to wood from expensive and rare tropical species. Starting on the 26th of January, EPFL+ECAL Lab is displaying several objects from daily life made out the new material. Elegant and sleek, objects such as headphones and a door handle show the promising possibilities of the new procedure.

Wood is composed of straw-like tubes filled with air—becoming much

denser when compressed. This process has been known for some time now, but until very recently the wood would bounce back into its original form when in contact with humidity. By tweaking the parameters of compression, the EPFL researchers have stabilized the compacted wood without adding any resin or other substance. Suddenly, pinewood loses its working-class roots and inspires for more lofty ambitions—teck, ebony or amaranth.

EPFL+ECAL Lab has called upon Swiss and French designers to create objects out of the new material. Each new project explores a different aspect of the wood. “These first trials are meant to explore the wood’s potential,” explains Nicolas Henchoz, director of EPFL+ECAL Lab.

“We are still in the experimental phase, the procedure will be optimized in the near future in order to move to industrial production,” Henchoz added.

If the bet pays off, it could reduce the burden on tropical forests.

Provided by Ecole Polytechnique Federale de Lausanne

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