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FLASH NEWS

■ THIS NEW „SUPER WOOD" MATERIAL IS STRONGER THAN STEEL

Wood is a wonderful material, one that has been used for a long time and will be used long into the future, especially since we rediscovered wood as a building material. But while wood is naturally tough, it cannot compete with steel when it comes to strength. However, engineers at the University of Maryland have found to create "super wood", making natural wood more than 10 times stronger, competing even with titanium alloys.

The new way to treat wood makes it twelve times stronger than the natural version, and ten times tougher. The combination strong and tough is not often found in nature, according to the researchers. The treatment makes the wood as strong as steel, but is six times lighter.

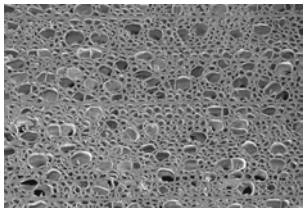
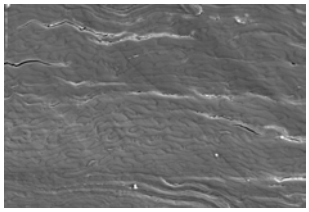
The process starts by removing the wood's lignin, the ingredient that makes the wood rigid and brown in colour. The wood is then compressed under mild heat of 65 degrees Celsius (150 degrees Fahrenheit). This causes the cellulose fibres to become very tightly packed. Any defects in the wood, such as holes or knots, are crushed together. The treatment was finished by giving the wood a coat of paint.

The treatment causes the wood fibres to be compressed so tightly that they can form strong hydrogen bonds. The compression makes the wood five times thinner than its original size.

The strength of the wood was tested by shooting bullet-like projectiles at it. The projectile blew straight through natural, untreated wood, but the treated wood stopped it partway through.

Thanks to the new treatment, soft woods, which grow faster than denser woods and are more environmentally friendly, could be made strong enough to be used for furniture or buildings. Treated wood can also replace steel in for instance cars and planes, or pretty much any project in which steel is used.

Photos: University of Maryland / Pexels

Sourse: https://materia.nl/article/super-wood-stronger-steel/

■ CE CONFORMITY FOR PRIMOLAM IN SPRUCE AND PINE

Weinberger recently started offering its cross laminated beam system for walls and ceilings in spruce and pine as CE-compliant. With the CE-conformity for primolam pursuant to ETA 17/0743, the company underscores its qualitative market dominance in wood composite for modern solid construction.

Primolam is already enjoying a brisk demand as the further development of Bilam forte and is regarded as a first-class alternative to cross laminated timber in the field of high-quality visible wood. Because the cross laminated beam system combines the advantages of cross laminated timber, brettstapel systems and glued solid timber in an innovative wall and ceiling system.

With this non-settling and exceptionally dimensionally stable wood composite Weinberger has managed to integrate both carpenter's workshops as well as pre-fab house makers and final customers more into the value creation process for many years. Because primolam is not only quick and easy to install. Finishing can also be carried out on site or the parts can be pre-assembled in the workshop to wall size.

Sourse: https://www.weinberger-holz.at/en/ce-konformitaet-von-primolam-in-fichte-und-kiefer/

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