



Next Generation Nano-structured Material Derived from Ocean Waste

Neptune Nanotechnologies Inc. is an early-stage tech Startup active in the bio-nano material space, specifically commercializing a technology that can convert organic fishing waste into ultra-high value nanocrystals called chitin nanocrystals. They function as physical additives where a small quantity of nanocrystals added can drastically increase the strength, stiffness, crack resistance and barrier properties of the underlying material.

Does Neptune revolutionize pulp and paper packaging?

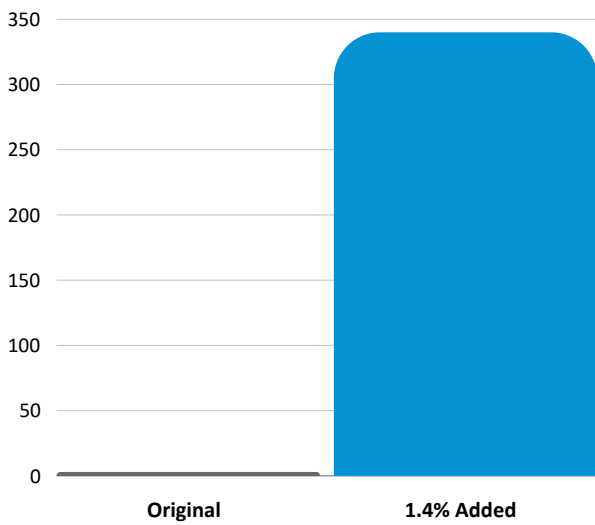
In a study completed by York University, it was concluded that incorporating just 1.4% of Neptune Nanotechnologies nanocrystals into pulp and paper packaging can achieve:

9900%

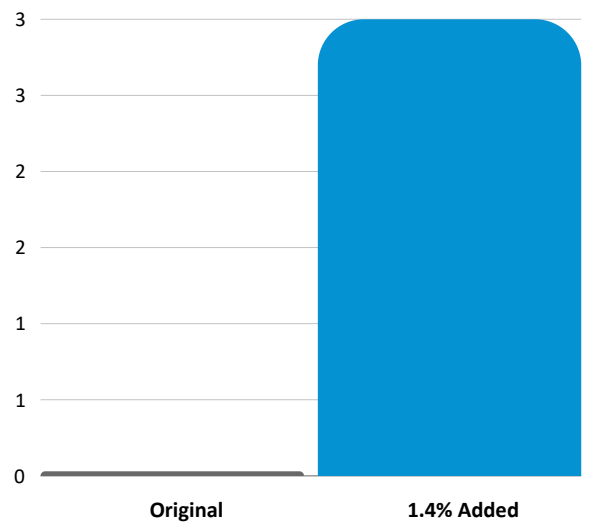


Up to 9900% increase in material strength and stiffness

Young's Modulus



Tensile Strength



Pulp and paper packaging challenges addressed

The pulp and paper packaging industry faces persistent challenges, including issues of low strength, inadequate rigidity, and susceptibility to degradation when in contact with water. The integration of a mere 1.4% chitin nanocrystals into pulp and paper packages emerges as a comprehensive solution to these industry-wide concerns. Not only does this incorporation significantly enhance the strength and rigidity of the materials, but it also promotes recyclability, given that chitin nanocrystals function as a non-toxic and biodegradable additive.

Want to learn more? Contact Us

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