



NeCycle®: Cellulose-based highly functional biomaterials

- A new bioplastic featuring the elegant black color (Urushi black) of traditional Japanese lacquerware.
- High scratch resistance and advanced printing technology to reproduce beautiful "Maki-e" (sprinkled pictures).

A top level Japanese lacquerware
(by Dr. Yutaro Shimode)



Cross section
Urushi
Base material

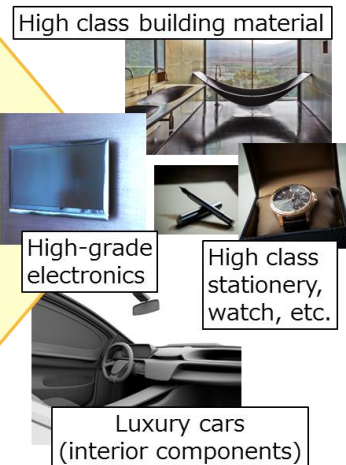
"Urushi black" bioplastic

Cellulose resin
Cross section
Special coloring agents

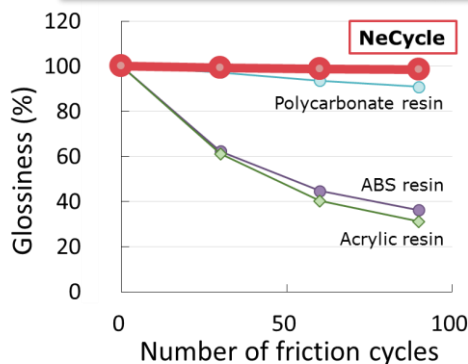


"Urushi black"

Target products
(examples)



High scratch resistance



"Maki-e" printing technology



Features and Benefits

- High level optical properties of high-grade lacquerware by fine dispersion of special nano-sized coloring agents (without coating process).
- High scratch resistance by adding specific additives which prevent abrasion by rubbing with cloths or paper.
- Advanced printing technology to reproduce fine, thick and beautiful "Maki-e" paintings by optimizing printing method and ink etc.
- Mass production is possible for products of various shapes using the molding process for ordinary plastics.

