

## QUON<sup>®</sup>

A natural fiber composite aimed at reducing environmental impact. It features high-quality and supply-stable cellulose microfibers to meet the demands of the automotive market.

### Application Interior materials for automobiles

Target of Development

1. Highly filled with CMF, a woody biomass material, to reduce the amount of materials used from fossil fuels
2. Cellulose with excellent rigidity and strength, unique additives, and compositing technology ensure mechanical properties and moldability.
3. Reduces odor and discoloration peculiar to natural fibers

Stage

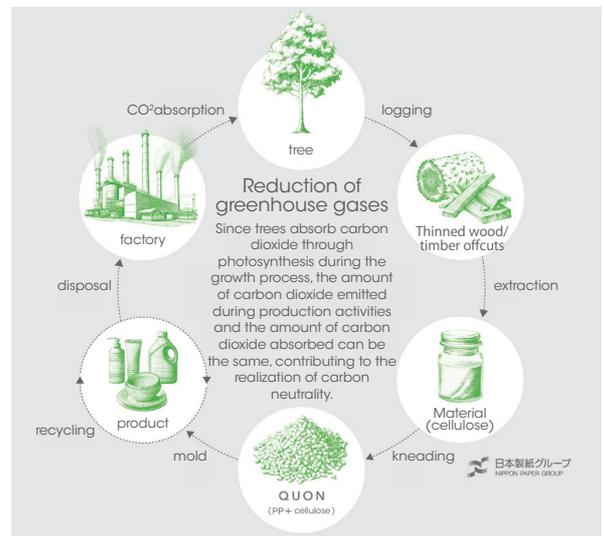
1. Planning Concept
2. Making Prototype
3. Compositing Development
4. On Sale

### Outline Features

#### What is QUON<sup>®</sup>?

- Composite material made by mixing cellulose microfiber (CMF) and PP to impart formability
- CMF is a woody biomass material made of the same pulp as paper. Since the raw material wood is available anywhere in the world, the supply is stable. In addition, the high filling can reduce the amount of material used from fossil fuels.
- By applying Mitsui Chemicals' unique additives and compositing technology, odors and discoloration are suppressed, and Mechanical properties and moldability are ensured.

#### Development of recycling-oriented materials using cellulose as part of the material



### Main features

#### Pellet appearance



Achieves appearance quality (whiteness), odor & VOC suppression

By suppressing overheating during processing, it is possible to produce pellets with low odor and discoloration, and high decorativeness.

#### Physical Properties Table (Development Product)

Item	Test Method	Development Product A (Focus on Rigidity and Strength)	Development Product B (Focus on Impact Resistance)
CMF Filling Amount [wt%]	Mitsui Chemical Method	30	
Specific Gravity		1.03	1.01
Flexural Strength [MPa]		44	29
Flexural Modulus [GPa]		2.0	1.4
Charpy Impact Value [kJ/m <sup>2</sup> ]		4.4	10

※These values are reference values for the development product and may be subject to change in the future.

The written contents in this brochure are based on currently available information and data etc. Please be mentioned that we do not provide any warranty about the listed data and evaluation.

#### Issue & Solution

Search for parts that can be applied as automotive materials (e.g., identification of required performance, quality, and cost issues)