Products

<table>
<thead>
<tr>
<th>Product</th>
<th>Concentration</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNF-1</td>
<td>Ca. 1 wt. %</td>
<td>10 kg</td>
</tr>
<tr>
<td>CNF-10</td>
<td>Ca. 10 wt. %</td>
<td>200 g</td>
</tr>
</tbody>
</table>

The company identified the following as main advantages of their CNF product:
- High strength and high elastic modulus.
- Low linear thermal expansion.
- Renewable resource.
- Lightweighting.

The company mainly produces CNF from Bamboo. The products are branded as nanoforest®. The company has also developed a novel moldable material comprised of CNF.

Production capacity

Approximately 100 tons/year of slurry/wet powder at the Sendai Mill.

Commercial applications

Composites: Main target markets are composites and resins in plastics and automotive industries. The company states that bamboo-based CNF is more compatible for creating composites with plastics and resins than other source materials.

The company is involved in collaborations with manufacturers for applications. In April 2017, Marubeni Corporation and Chuetsu agreed to jointly develop the application and sales of nanoforest. Marubeni has established the CNF Business Incubation Section in its Wood Chip & Pulp Department. Marubeni is working to develop new applications of CNF and expand sales channels by fully utilizing the customer network it has established through its chemical and paper & pulp business.

Regenerative medicine and drug delivery systems: The company is working with the Japan Advanced Institute of Science and Technology (JAIST) on solutions in regenerative medicine and drug delivery systems (DDSs). Chuetsu and JAIST’s work on regenerative medicine covers research on scaffolding materials used in cell cultivation, as well as...