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CNF technology development contributes to the evolution of rubber products

CNF / Biomass

Nippon Paper Industries Co.,Ltd

Outline of Research and Development

Introduction

CNF is a sustainable material derived from wood, and is known to provide better performance than carbon black, which is a common filler in rubber applications. Various studies were conducted to promote the use of CNF in rubber products.

R&D Activities and Results

① Reduction of CNF costs

Development of fibrillation machine,
optimization of fibrillation, and productivity improvement

② Development of CNF/rubber masterbatch

Easier handling of CNFs at the customer's site

③ Improvement of rubber properties

Reinforcement performance, fuel efficiency,
weight reduction, etc.

Future Prospect

Expected to improve performance of various rubber products

Fig1. New fibrillation machine
(Left:Nozzle type / Right:Disc type)

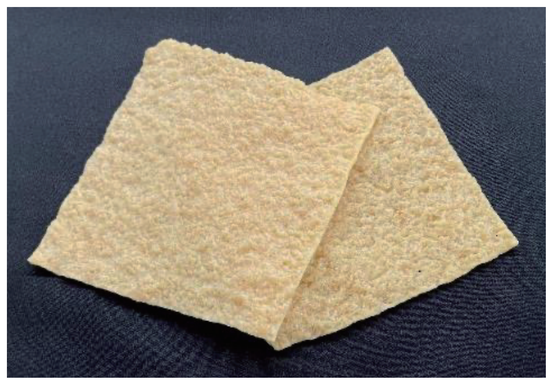

Fig2. CNF/rubber masterbatch

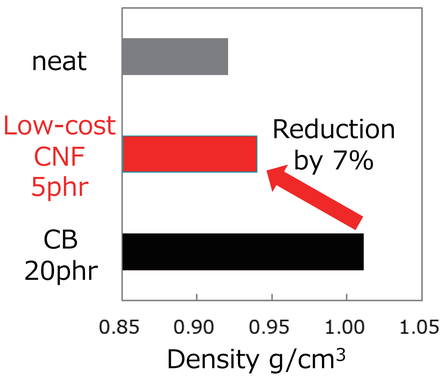

Fig3.Weight reduction

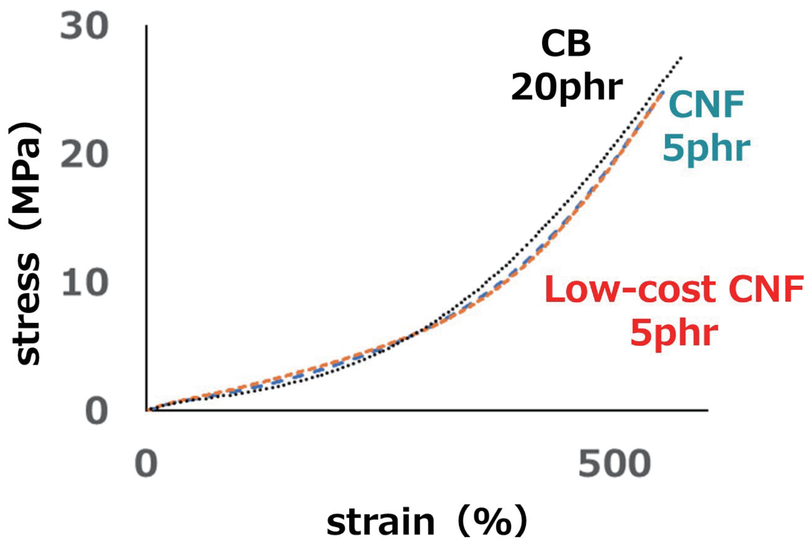

Fig4. Reinforcement performance

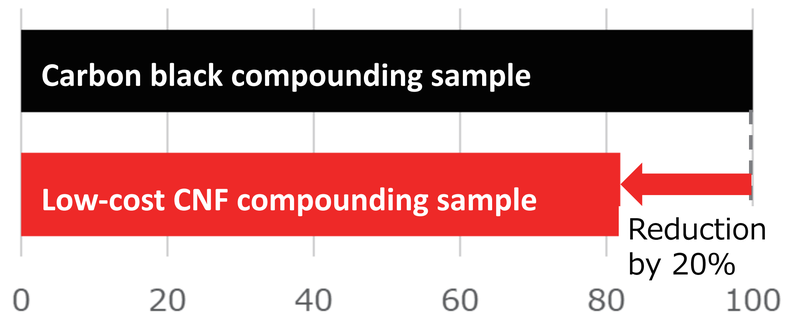

Fig5. Fuel-efficient performance

For Visitors

If your company is considering improving the performance of rubber products, why not try our CNF? You can expect functional improvement by taking advantage of the characteristics of biomass-derived nanofibers, which are not found in conventional fillers.

Related Site Introduction

Nippon Paper Industries Co.,Ltd

https://www.nipponpapergroup.com/research/organize/cnf/index.html

Project Name	Development of Production Technology for Bio-based Products to Accelerate the Realization of Carbon Recycling / Development of CNF Utilization Technology
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