

A Method of Preparing Graphene-based Natural Rubber Latex Compound for Glove and The Like Articles

TECHNOLOGY #P17007

Category

Energy and Environment

Solution

Through chemical modification, our invention created stronger rubber gloves.

Technology & Applications

The global Rubber Gloves market is valued at 4470 million US\$ in 2018 and will reach 8400 million US\$ by the end of 2025, growing at a Compound Annual Growth Rate (CAGR) of 8.2% during 2019-2025.

Traditionally, Natural Rubber (NR) latex glove has been the glove of choice for the medical industry due to its low chemical and high puncture resistance. In addition, it is highly biodegradable and can be easily disposed of by incineration.

Advantages

- Graphene enhances the tensile strength of the NR latex film via chemical modification.
- Further chemical treatment of GS to produce GSCL enhanced the tensile properties of the vulcanized NR latex film markedly.
- Increasing the concentration of GSCL bring improvement on the tensile strength
- Addition of graphene into the NR latex can compensate for the decrease in tensile strength as a consequence of the reduction in thickness of NR latex film.

Intellectual Property

Patent: PI2020007208

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Gallery



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