

Reinforces thin door panels and contributes to body weight reduction (low-fuel consumption)

Reinforcement Tape for Automobile Door Panels (Steel Panels)

Features

- Thickness reduction of automobile door panels.
- Reinforcement of automobile door panels.
- Body weight reduction to contribute to low-fuel consumption.

Overview

(Technical principles, actions, etc.)

Outline

The weight reduction of door panels is realized with the thickness reduction of steel plates used for the door panels, which however result in the lower rigidity of the door panels and the generation of noise. Our solution to these problems is NITOHARD, an epoxy foam type reinforcing and vibration-damping material for steel panels.

NITOHARD firmly adheres to steel plates and conforms to curved surfaces. NITOHARD is expanded and hardened using the heat released during the paint-drying process, and provides partial reinforcement for steel panels.

Characteristics

- Can be easily attached to steel panels and foamed and hardened by heating to provide excellent reinforcement, vibration-damping, soundproofing, and thermal insulation.
- Initial adhesive property permits easy attachment to a variety of materials. Can be attached without pre-processing to oily steel panels as well.
- Remains flexible before foaming and adheres tightly to complex shapes and curved surfaces. Extremely easy to work with and has excellent punchability.
- Wide functional temperature range and does not deteriorate at any temperatures.
- Special structure of resin layer prevents strain of substrate after hardening, thus making it possible to propose optimum shapes and pasting positions.



NITOHARD

Introductory Track Record

- NITOHARD has been adopted by automobile manufacturers.

Effects

- ◎ NITOHARD can be pasted to the desired steel plate areas of doors so as to contribute to the weight reduction of the doors.

Example: The thickness of door panels can be reduced to 0.65 mm from 0.8 mm. The 0.15-mm reduction results in a weight reduction of approximately 5 kg on each automobile basis.