

TECHNICAL DATA SHEET

PRODUCT CODE : FIBERGUARD™ 509H10P BLACK

PRODUCT GROUP : SURFACE PROTECTION TAPES

General Description

Nitto FIBERGUARD™ 509H10P is surface protection tape, which protects metal surfaces during Fiber and CO₂ laser cutting processes. This product consists of printed PE film, combined with natural rubber adhesive which is improved for CO₂ and Fiber laser cutting processes.

Construction



- Solvent Based Natural Rubber Adhesive
- Black & Grey PE film (printed with arrows and the Nitto Denko brand name in Black)
- Release coating

Characteristics / Features

The improved rubber adhesive has excellent adhesive qualities required for both Fiber and CO₂ laser cutting processes after automatic lamination.

- Laser cutting of stainless steel up to 3 mm
- Preventing the bubble forming
- High adhesion
- No pre-cutting required
- Functional print
- Film with high mechanical strength

Application

Nitto FIBERGUARD™ 509H10P is surface protection tape that protects metal surface during Fiber and CO₂ laser cutting processes, especially for high speed and performance laser cutting machines.

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Product Properties

Test Method	Parameter	Unit	Typical Properties
-	Film Type	-	Black & Grey LDPE Co-Extruded
-	Adhesive Type	-	Solvent Based Natural Rubber
BTM019	Total Thickness	micron	100
BTM023	Breaking Strength	N/25mm	45 (MD) / 30 (CD)
BTM023	Elongation	%	350 (MD) / 600 (CD)
BTM061	180° Peel Adhesion (SUS304BA)	N/25mm	3,40
ISO 4892-2	Weatherability on BA Steel*	hour	100

* The weatherability is measured on BA steel. Depending on the substrate the weatherability performance can be different.

Availability

Widths : 1000 mm, 1250 mm and 1500 mm

Lengths : 500 m, 750 m and 1000 m

Please contact us for specific dimensions.

Warnings

- This product guarantees only the product's characteristics and quality stated in above scheme.
- The function of this product is basic & temporary protection against minor scratches, tool marks and dirt.
- Wipe off any grease, moisture or dust on the adherent before application.
- Due to different application methods and process conditions at customer side, Nitto Bento recommends the customer to make a full trial before usage of the tape for each application. The trial should simulate the "real life usage" conditions like; type of adherent material, surface finish, temperature, time, etc.
- A new trial (including the appearance) is necessary if the adherent (composition/surface roughness), conditions or application has changed.
- Tape coated products should not be stored under direct sunlight. It is strongly recommended to take the tape completely off after application. Nitto Bento is not responsible for damages on the surface caused by misuse of the product.

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Lamination Guidelines

- The tape should be applied to clean and dry surface by automatic mechanical means.
- In order to avoid formation of air-bubbles, excessive tension and shear, the customer should determine appropriate lamination conditions in their process.

Application Guidelines

- In order to reach the ideal adhesion level for laser cutting, it is recommended to wait 1 week after lamination.
- To avoid bubble forming, the customer should determine appropriate laser cutting conditions.
- This tape could contain fish eyes and gels. It is not suitable to use in heavy forming processes due to the risk of visual imprints on the substrate.
- Surface protection tapes are not meant for permanent protection; they should be removed at the end of the supply chain.

Storage Conditions

This product's warranty period is 6 months after delivery date under following conditions: The product should be stored in original packaging in "closed areas", dry and clean places with low humidity and must not be exposed directly to sunlight (recommended temp: 25 ± 3 °C).

Transport Information

According to dimensions, the amount of product can be changed on palette. The palettes are wrapped with shrink. There are labels on each palette including supplier information, product name, product code, dimensions amount and order number (upon request) and lot numbers in each roll. Certificate of analysis could be sent for each shipment if requested.

NOTE: This datasheet provides a general description of the product properties and application scope. Full technical details in connection with this product are presented in the customer product specification, which is available upon request.

The information reflected in this datasheet is subject to change and the product described herein may be modified or discontinued without notice.