Application Instructions for Barcode/RFID - Labels

inotec
label excellence

Application Instructions for Barcode Labels
Due to constant innovation, technical information is subject to change

Please follow the instructions carefully to achieve optimal results of the adhesive properties of inotec labels.

The surface must be clean and dry!
Condensation must be avoided. Condensation might occur when the material to be labeled is moved from cold to warm environments. Remove from the surface dust, grease, oil and separating agents. The surface must be wiped thoroughly with a cloth soaked with solvent. A solvent that do not damage the surface has to be used, e.g. benzene or isopropyl alcohol.

No immediate labelling of containers after injection moulding!
In order to ensure optimal adhesion with the base surface, labels should not be affixed to plastic containers which are still warm from the injection moulding process. Labelling should first be performed 48h after injection moulding. If a prompt labeling of the containers is unavoidable because of production-related reasons, it must be checked individually and taken into account when selecting labels.

In-molded products
There must be no paint damage to the label surface due to high temperatures during the molding process. Also, make sure that a complete connection of Inmoldlabels with the plastic surface.

RFID Products
In order to prevent the chip from being damaged the following instructions must be observed:
The surface of the driving roll's dispenser should be made of a rubberised material. The feeding of the container with labels must be guided with a spring loaded plate (e.g. stamp). The stamp should be compressible. For manual application of the labels, a plastic squeegee can be used. The pressure should be firm but not too firm.
Excessive bending of the labels should be avoided, otherwise the connection between the chip and the antenna may become damaged. The functionality of the RFID labels should be checked after application, on a random basis.

The areas to be labeled must be composed of a solid and stable material!
Remove any loose particles or chalky surface materials.
The maximum capacity of an adhesive compound is determined by the power of the molecular force of attraction between two different substances. This power is called adhesion. The force of attraction is determined by the surface energy. Depending on this energy there are high-energy or low-energy surfaces.

inotec adhesives are especially suitable for high-energy surfaces!
This kind of surface readily accepts coating and allows trouble-free application of the adhesive, as it facilitates the flux of the adhesive. The following materials have a typical high-energy surface: steel, aluminum, polyester, PVC, polycarbonate and silicon-free acrylic-based varnish.

inotec adhesive are especially suitable for low-energy surfaces!
Low-energy surfaces do not easily accept coating. The application of adhesive is problematic as the force of attraction is very low. The following materials can be counted among the typical low-energy materials: polyethylene, polypropylene, teflon, silicone and siliconised varnish with a structured surface. To assure permanent adhesion on this type of surface, we suggest a modified acrylic adhesive, which shows good flux behaviour even on low-energy surfaces.

Rough and structured surfaces require a thicker adhesive layer than smooth ones to assure adhesion in depressions!

The ideal adhesion temperature is approx. +20° C!
Avoid adhesion if surface temperature is below +10° C.

The adhesive power is dependent on the contact the adhesive develops with the background!
Good surface contact is achieved through firm pressure with a pressure roller or plastic spatula. Inotec labels reach their final adhesive strength after 72 hours at room temperature. Perform labeling and stress tests only after the adhesive has reached optimum power.

inotec barcode/RFID-labels should be stored at room temperature (+18° C to +24° C) and approx. 50% rel. humidity. Storage should not exceed a period of 12 months.

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