

Neschen® FLOOR GRAPHICS Solutions Instructions for use

Our print media in combination of the following Surface laminates:

solvoprint easy 80 GSP removable

filmolux® FGS

+

solvoprint easy 80 GSP nolite

filmolux® easy clear sand

as well as

solvoprint easy dot glossy / matt +

filmolux® nippon plus

(with edge protection, exclusively this combination is recommended)

Within these instructions we would like to introduce our **Floor Graphics Solutions**, which you may use for creating your punctual floor advertising. These product systems are the result of intensive development in the service of our customers. The **Floor Graphics Solutions** means that even your floor surfaces can be turned into an information medium in an easy and economic way. Important notice: Please do not understand this **Floor Graphics Solutions** as a new floor covering. To ensure you are using the **Floor Graphics Solutions** to their full advantage, we ask you to follow the instructions for use as closely as possible.

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1. General information

The Floor Graphics Solutions comprises two main components, which are used as the basis for creating the advertising images for punctual eye catcher. Together these offer an easy and economic combination. The two components are a removable print media and a laminate which is successfully tested for floor graphics.

The cold lamination we recommend are subject to continuous testing: for example, their non-slip properties have been tested by the German BG-Institute for Work Safety and Health (BGIA) or by the Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA).

2. Components for the Neschen Floor Graphics Solutions

The first component – the removable print media – we recommend is:

solvoprint easy 80 GSP removable (also printable with Latex inks)

is a special PVC- film, 80µm, white, glossy with semi-permanent adhesive. The adhesive is easy to remove which a basic requirement for **Floor Graphics Solutions**.

Or:

solvoprint easy 80 GSP nolite (also printable with Latex inks)

is a special PVC- film, 80µm, white, glossy with semi-permanent and grey coloured adhesive. With this are also applications possible on coloured or patterned surfaces. The adhesive is easy to remove too which a basic requirement for **Floor Graphics Solutions**.

Or:

solvoprint easy dot glossy / matt (also printable with Latex inks)

is a special PVC- film, 100µm, white, glossy with a permanent and clear adhesive. The dot shaped glue allows easy and bubble free positioning by hand. The adhesive is easy to remove too which a basic requirement for **Floor Graphics Solutions**. For Floor Graphics Applications with this print media we recommend an edge protection, to avoid intrusion of humidity.

The second component – the cold lamination film, which is needed to protect your print – we offer three films which you may choose

filmolux® FGS

a 185µm polymeric soft PVC, transparent, one-sided self-adhesive, satin matt with grain finish. Our filmolux® FGS is certified by the Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA) – class R9.

Furthermore **filmolux® FGS** is suitable for the protection of floor graphics on sports floors and corresponds to determine the friction of a self-adhesive film according to DIN EN 14904:2006 European standard for sports floors.

filmolux® nippon plus (up to 155cm width)

is a 200 µm monomeric soft PVC, transparent, one-sided adhesive, transparent, satin matt with a fine sand structure and a scratch resistant surface. Our filmolux® nippon plus is certified by the Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA) – class R9. With this laminate **Floor Graphics Solutions** are possible until 155cm width.

filmolux® easy clear sand

is a 80 µm monomeric soft PVC, transparent, one sided self-adhesive with a special surface finish. The filmolux® easy clear sand is certified by the Institute for Occupational Safety and Health of the German Social Accident Insurance (IFA) – class R9.

Please note: our Floor Graphics Solutions works also with three components.

To ensure even more flexibility, you can print on any print media, mount this with our double sided adhesive **gudy® 804** and then finish the print with one of the three laminates mentioned above.

gudy® 804

a 70µm monomeric soft PVC, transparent, coated on one side with a permanent adhesive and the other side with a reversible adhesive. The two backings of **gudy® 804** allows a manual handling without any difficulty. The reversible can be easily removed when creating **Floor Graphics Solutions**.

3. Manufacture of the laminate

To finish a floor graphic with a printed **solvoprint easy 80 GSP removable, solvoprint easy 80 GSP nolite, solvoprint easy dot glossy / matt** or your own print media in combination with any one of the above mentioned lamination films you must follow the same principles when applying laminates on print media with permanent adhesives. Please be sure to allow sufficient drying time of the printed **solvoprint easy 80 GSP removable, solvoprint easy 80 GSP nolite, solvoprint easy dot glossy / matt** or your print media before laminating or applying.

Furthermore, we ask you to follow our Application Instructions for Mounting & Laminating in addition to the Technical Data Sheets of the chosen products.

4. Areas of application

According to the specifications put in place by the German employers' liability insurance associations, adhesives for use on flooring are placed on the same level as floor coverings. As a result, there are special regulations in place for their use in work spaces, areas of operation and thoroughfares whose floors come into contact with slippery materials and where, therefore, a risk of slippage exists.

The following listing doesn't guarantee any completeness. For information on other specific cases, please be so kind as to ask us about the requisite regulation for the planned application in advance.

These include general-purpose work spaces and areas of operation, entrance areas, stairways, break rooms, kitchens, dining areas, visitor areas, cafeterias (including operating and serving areas), cold storage rooms, showrooms, customer areas, point of sale areas, packing areas, services aisles, areas for medical diagnoses and therapy, massage rooms, operating theatres, stations with sick rooms and floors, medical practices, day clinics, chemists, laboratories, hair salons, laundry rooms, rooms with tunnel washing machines (wash pipes) or washing centrifuges, rooms for ironing and mangling, halls in financial institutions, entrance areas in schools and nurseries, recreational area floors, classrooms, common rooms and stairways.

filmolux® FGS is also suitable for the protection of floor graphics on sports floors and corresponds to determine the friction of a self-adhesive film according to DIN EN 14904:2006 European standard for sports floors.

As is normal for floor coverings, the **Floor Graphics Solution** becomes slippery when wet. To guarantee maximum safety, the Floor Graphics Solution should not be applied to areas which may become wet as a result of exposure to rain or snow. You are strongly advised to use doormats in entrance areas.

5. Surfaces for gluing

5.1 Recommended floor coverings

- Wood laminate
- Ceramic tiles
- Marble
- Parquet
- Floor pavement
- High-quality PVC

Under unfavourable conditions, lesser-quality PVC floor coverings release high quantities of plasticizers, which can have a negative effect on the adhesive properties. Certain types of parquet flooring and wood laminates have a sealing varnish applied to them, which is not sufficiently compatible with pressure-sensitive adhesives. Please read the manufacturer's information in such cases.

Gluing onto floor pavement is only recommended in cases where the floor pavement surface is smooth and has no components which can become loose. When gluing over the gaps between ceramic tiles, please observe the procedures particularized in the paragraph that follows ("Surfaces for gluing").

5.2 Surface treatment*

To ensure safety and prevent the subsurface from being damaged on removal, the individual chosen **Floor Graphics Solution** has to be bonded on the entire surface. The floor covering must be in good condition and firmly fixed in place. Prior to gluing, we suggest carrying out the following steps:

- Ensure that the floor covering is firmly affixed to the subsurface. If this is not the case, the covering may lift off during removal.
- Repair any tiles that are, for example, loose-fitting or uneven.
- Clean the subsurface in accordance with the instructions below:

We recommend performing the following cleaning procedures:

- If there is evidence of any oily contaminants (or similar) on the surface, apply alcohol or a gentle solvent of a similar nature to it as a pre-cleaning procedure. Ensure that such contaminants have been completely removed before continuing with any other cleaning procedures.
- Following this, use a mild surfactant-based detergent. This should be free from enzymes. Ensure that the entire surface is cleaned, and that the detergent is removed without leaving any residue.
- The size of the cleaned surface should exceed that of the adhesive surface by at least 20 cm in all directions.
- Make sure that the floor is dry and clean. For drying purposes, only lint-free cloths should be used.

*** If this cleaning agent is used, the instructions for use provided by the manufacturer must be followed as closely as possible. Prior to use, the user of these chemicals must be aware of information on the labels, as well as the safety data sheets.**

6. Gluing down the individual chosen Floor Graphics Solution

The **Floor Graphics Solution** can only be used on floors with temperatures of between 15 and 40°C. If floor heating is in place, it should be ensured that the heating medium does not exceed the stated temperature range. Generally speaking, this should not be the case with floor heating systems that are operated in the usual manner.

The **Floor Graphics Solution** should be glued down during periods when the material will be subjected to either no mechanical loads or as few as possible. As a result, it is recommended that application take place shortly before close of business, for example, and that the laminate be left to rest overnight. We recommend a "rest period" of at least 12 hours before carrying out the first mechanical cleaning procedure. However, it is possible to walk on the floor immediately.

As is normal for floor coverings, the **Floor Graphics Solution** becomes slippery when wet. To guarantee maximum safety, the **Floor Graphics Solution** should not be applied to areas which may become wet as a result of exposure to rain or snow. You are strongly advised to use doormats in entrance areas.

Before gluing the **Floor Graphics Solution** onto floor coverings, please ensure that these are in perfect condition. Particularly in cases where the floor covering is not adequately fixed to the subsurface, the floor covering may be lifted off when the **Floor Graphics Solution** is removed. Loose tiles (or similar) must be repaired before the Floor Graphics Solutions can be glued in place. The subsurface onto which the **Floor Graphics Solution** is to be applied should be as smooth as possible. Prior to gluing, thorough cleaning (as outlined above) must be performed as a matter of course. Applying the material to carpeted floors is not recommended.

- Gradually remove the release liner, applying the adhesive as it becomes exposed.
- Position the Floor Graphics Solution laminate on the floor, which has been prepared as described above
- Avoid gluing the border areas over indentations or uneven parts such as gaps (or similar). If the laminate is being bonded onto tiles with deep gaps, apply a squeegee to each tile, working from the centre outwards until you reach the gaps.
- Use a squeegee or hand roller to press the laminate firmly onto the subsurface, working from the centre outwards. While doing this you must ensure that the entire laminate is glued down, and that no air bubbles are present. The adhesive properties of **solvoprint easy 80 GSP removable, solvoprint easy 80 GSP nolite, solvoprint easy dot glossy / matt** or **gudy® 804** enables any necessary corrections to be made on virtually any subsurface.
- Ensure that direct contact cannot be made with the glued surface; or, if this is unavoidable, that contact is only made with lint-free gloves or hands that are clean, dry and grease-free.
- Avoid contact with the corners and edges, as these are the most important points for ensuring adhesion to the subsurface.
- Where possible, use a motif with rounded contours, since sharp corners and edges constitute weak points where removal may occur.
- apply the motif as single eye catcher, as these materials can be affected by physically-determined dimensional fluctuation.
- If removal at the corners occurs as a result of heavy mechanical strain, these corners should be rounded wherever possible. Once the subsurface has been cleaned, the laminate should be reapplied with increased pressure.

- It is not necessary to seal the **Floor Graphics Solution** with floor wax or adhesive tape for the edges, but it increases its service life (especially **solvoprint easy dot glossy / matt**).

7. Care

The **Floor Graphics Solution** is a high-quality product that has been developed over decades of experience in the field of floor coverings. As a result, it boasts outstanding properties in terms of its resistance to scratches, non-slip surface and reaction to soiling. Despite this, it is, of course, impossible to prevent soiling from occurring. Where wet surfaces are concerned, there is naturally a markedly increased risk of slippages occurring, although the system's properties in this respect fulfil extremely stringent requirements.

It is possible to perform cleaning from time to time using mild soap-based products diluted in water. In individual cases, compatibility with solvents should be checked. After cleaning, ensure that the surface is completely dry before allowing it to be walked on again.

Prevent the border areas from coming into contact with water for extended periods, since the adhesive used is an environmentally-friendly, water-based material whose adhesive properties may be diminished as a result.

Heavy, sharp-edged items that either move across the surface or are placed on top of it may lead to damage occurring. For this reason, avoid applying the **Floor Graphics Solution** in areas whose floors are exposed to heavy loads. The best locations for applying the Floor Graphics Solution are those which have normal levels of foot traffic.

8. In cases where...

... parts of the **Floor Graphics Solution** remain on the floor covering after it has been removed following an extended period of application, clean the remaining parts (after checking their compatibility with solvents and the floor covering). Ideally, this should be done using benzene, but alcohol or ethyl acetate (ethyl ethanoate) may also be used*. Prior to removal, any floor heating systems that may be present should be switched off. By removing the tape at an optimum angle, the amount of necessary clean up will be reduced. Small amounts of adhesive that may remain can also easily be removed by using the adhesive side of the film itself.

*** If this cleaning agent is used, the instructions for use provided by the manufacturer must be followed as closely as possible. Prior to use, the user of these chemicals must be aware of information on the labels, as well as the safety data sheets.**

9. Guarantee

If these products are affixed in the proper manner and with the proviso that the instructions outlined here have been followed, we guarantee that it will be possible to remove the Floor Graphics Solution with virtually nothing remaining for at least 2 months following application. In individual cases, the specified period may be extended.

10. Insurance in the event of damage

Should personal or material damages occur through the use of the **Floor Graphics Solution**, and it has been handled in the manner described in this document, these shall be insured to the sum of 10.0 million euros per claim. For more details, please contact our sales staff.

The specifications in these instructions are based on our knowledge and practical experience. Due to the range of factors which may affect handling and usage, it is essential to carry out your own tests. The specifications we have provided in respect of certain features do not constitute a legally binding warranty. We can assume no liability or provide any warranty in respect of using the films beyond that which is covered by the scope of this document.