Plant & Offices:

Dalsouple SN 4 rue du Champ de Montigny ZI des Brunelleries 49080 BOUCHEMAINE France

Phone: + 33 (0) 2 41 23 34 01 Fax: + 33 (0) 2 41 23 34 02 VAT N°: FR 26 814 638 532



# **Installation & Maintenance Guide**

We kindly ask you to read the information about the installation and the maintenance of the Dalsouple® rubber floor to get the best results

## **Synopsis**

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# 1 Dalsouple® floor covering selection

Several specific references are available among our collections of Dalsouple® tiles (consult our website <a href="https://www.dalsouple.fr">www.dalsouple.fr</a>, our catalogue and brochures).

- "ECODURABLE": 90 % natural rubber or latex
- "INTEMPÉRIE" for outdoor use and Indoor use in front of overexposed windows or doors (Polyurethane adhesives recommended)
- "DISSIPATIVE" for electrical conductivity close to  $10^6$  ohms (Conductive adhesive recommended on conductive floor see the manufacturer instructions for use) does not exist in with natural rubber
- "EXTRA-CONDUCTEUR" for electrical conductivity close to 10<sup>3</sup> ohms (conductive adhesive recommended on conductive floor see manufacturer instructions for use)
- "MAGNETIC" for installation on metallic technical floors
- "DALADHESIVE" for an easier and quick installation, and a immediate opening of the area after installation (no need to wait 48H for glue drying process, the adhesion is instantaneous)
- "DALACOUSTIC" for an enhanced acoustic attenuation up to 18dB, with undercoat for Unismooth, Micro-Reliefs, Terrazzo and Marbré and adhesived for the Reliefs collection.

Bonded Dalsouple® tiles have two sides: one side is sanded to ensure proper adhesion of the glue and the other side is the visible side once the tile is installed.

Without specific demand for a special reference the standard reference will be produced. In order to enhance on the long term the color's pigments strength contained in the tile, DALSOUPLE recommends the use of the outdoor reference for the floors that are particularly exposed to the sun lights (bay windows, roof windows, skylights, etc)- contact us in case of doubt.

# 2 Choice of tools and materials not supplied by Dalsouple®

All materials and/or equipment must be used in accordance with the instructions and directives of the associated suppliers.

#### 3 Choice of adhesive

The tiles may be laid with different adhesives depending on where they are installed and their intended use. Whatever the adhesive you intend to use, it is important to follow the glue manufacturer's instructions to ensure proper installation. Carefully follow the recommendations regarding the technical time to be observed when using their adhesive (gumming and open times that define the sequence of bonding operations and working times).

The bonding operations must be performed in an aerated room while wearing the appropriate personal protective equipment (e.g.: gloves, mask, etc.)

DALSOUPLE® suggests the here below listed glues; nevertheless they may be replaced by other references according the country concerned and the availability of the products. This choice will then be done under the fitter responsability.

Two-part adhesive: (refer to manufacturer instructions)

These types of adhesives are recommended for outdoors applications or moist environments.

Polyurethane adhesive (Bostik EPONAL PU456)

#### Emulsion adhesive: (refer to manufacturer instructions)

Acrylic adhesive: They are sensitive to water and moisture (BOSTIK POLYMANG POWER ELASTIC type or Sader Tech V8. The glue Bostik POLYMANG HQA or SM type can also be used in certain circumstances). Use with caution.

## Contact adhesive (refer to manufacturer instructions):

Neoprene adhesives can be used (double spread) depending on local regulation, as they contain volatile and flammable solvents. (Bostik GREENPRENE without solvent or COFIX-S with solvent)

# Dry adhesives: (reference DALADHESIVE)

The innovative adhesion system has been developed for Dalsouple rubber flooring and can be used almost everywhere (please contact us).

Its use requests to lay a primary layer (BOSTIK primary UNIDUR-N) in order to secure the integrity of the support which must be without dust when the tile is fitted.

DALADHESIVE allows an immediate adhesion. It is possible to reposition the tile once, if it is carried out quickly.

The seams will be perfectly adjusted. The opening to foot traffic is almost immediate.

In case of finger tip traces on the adhesive which can slightly reduce the adhesion, a localized use of a contact glue (NEOPRENE type) is suggested.

Dalsouple rejects any responsibility in case of the use of another type of glue.

Dalacoustic cannot be glued with the dry glue. Polyurethane glue must be used.

Please consult us.

#### 4 Selecting a trowel/spreader

The trowel/spreader is chosen according to the type of glue which is used. It is important to follow the adhesive supplier's recommendations.

Dalsouple® tiles require a smooth or finely serrated No. 2 or A2 type trowel (TKB standard) to spread at least 250 to 300 g/m² of adhesive and to ensure that the tile surface is covered completely and regularly.

The BOSTIK GREEN CONTACT glue is applied with a polyamide roll (yellow fillet) of 12 mm.

The COFIX-S is applied with a trowel "triple –zero" allowing a layer of 150g/face/m² (ie 300g/m² for the system tile/support)

# 5 Before installation - storage and packaging

Check that the tiles are properly packed: damaged packaging may indicate that the quality of the Dalsouple® tiles has been compromised.

It is mandatory to check that the tiles in the package correspond to the order at the opening of the package and before installation. Dalsouple rejects any responsibility in case of glueing products delivered by Dalsouple that don't conform to the ordered ones, whatever is the origin of the problem.

Damaged tiles must not be fitted and a suspicious tile must be put apart. In particular, the handling of pallets of tiles should be done with caution. The degradation of the pallet during inappropriate handling can impact the quality of the product: It is forbidden to overlay two pallets of tiles.

We recommend you to check your layout plan by loose laying the tiles before applying adhesive to the substrate. No claim will be studied if the tiles have been glued.

Note: the color of the tiles may vary slightly compared to the samples presented and according to which the order was placed. This may be due to the difference in the date of manufacture, which necessarily leads to slight pigmentation variations in the gum.

The tiles must be stored together in the same neutral physical and chemical environment (temperature > 10°C to 50 °C under shelter, humidity < 75 %, atmospheric pressure, neutral pH, etc.). This storage should be as short as possible and must not exceed 1 month to avoid slight variations in size before bonding (bonding the tiles eliminates this phenomenon). The storage location must be dry, protected from inclement weather, mechanical stresses and/or chemical and direct sunlight.

If the storage duration exceeds 2 weeks DALACOUSTIC and DALADHESIVE must be stored in complete darkness in order to protect the under-layer from UV light. We suggest that they remain packed as delivered.

To prevent condensation on the tiles, which would induce a reduced bonding efficiency, they must be stored in job site conditions at least 48 hours prior their installation.

In case of cohabitation with chemicals, any necessary precautions must be taken to protect Dalsouple® tiles.

In particular, our *standard* Dalsouple® references are not guaranteed against oils and hydrocarbons of any kind. Special tile references, created for these types of applications, are available in our product range (contact us). Unless a specific request is made for a special tile reference, the standard reference will be manufactured.

## 6 Preparation of the substrate

The substrate must be prepared by professional flexible rubber flooring installers in accordance with current trade rules and/or regulations in the country concerned. For France, DTU 53.2 must be respected with regard to the rules governing substrate acceptance.

Compliance with these rules and therefore the success of the installation does not fall within the scope of responsibility of Dalsouple® as it has no control over the work performed by the installer.

In addition to this regulatory framework, the specific characteristics of Dalsouple® flooring must be taken into account

The risk of rising moisture must be completely eliminated (in particular, cement screeds must be completely dry without risk of rising moisture - refer to the construction standards in force in the country or location in question, especially regarding the measurement methods).

If there is a risk, a special barrier on the substrate is mandatory.

The installer must measure the porosity of the substrate and moisture content in accordance with current standards before the tiles are installed (recommendation: sufficient porosity to allow the adhesive to bond and screed humidity below 4,5 % and <0,5% in case of anhydrite substrate (calcium sulphate).

Non-compliance must result in the immediate implementation of corrective actions.

Dalsouple® products must be installed on a P3 class (minima) thin self leveling screed (thickness > 3 mm).

The substrate must be hard enough to resist indentations.

Any other configuration shall be under the responsibility of the installer.

The floor must be perfectly clean and flat, without cracks, waviness, holes, bumps and free of any defects that may affect its flatness and/or strength. The Dalsouple flooring will reflect the substrate's profil with his defects.

It must be cleaned of all cement grout and laitance, particles or dust (e.g. thin-set mortar sanding dust) and in general, all elements likely to interfere with the bonding of the Dalsouple® tiles.

### 7 Preparation of the installation

All our floor coverings must be laid by professional flexible rubber flooring installers in accordance with current trade rules and/or regulations in the country concerned.

Compliance with these rules and therefore the success of the installation does not fall within the scope of responsibility of Dalsouple® as it has no control over the work performed by the installer.

Sanding dust may be found at the back of the tiles in such case a light brushing of this face may be necessary prior to install the tiles. Doing so will ensure that the surface is free of any material, debris, residue or other foreign particles that could interfere with bonding.

If colored tiles and/or tiles with multiple textures are used, experience has shown that it is better to define the order and position of each type of tile before starting to bond the tiles (layout).

The installation must be performed at a temperature between 10°C and 30°C; humidity should be below 75 % (refer to the adhesive supplier's recommendations).

The temperature gradient between the tiles and the laying area must be low enough to avoid condensation.

The room must be sufficiently ventilated to allow the adhesive to dry.

To avoid any risk of damaging the Dalsouple® floor covering by other work in progress, it must be laid last and in a single operation depending on the areas concerned.

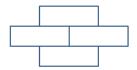
If this is impossible, the area must be covered by an appropriate system of protection during the construction period. In order to limit the risk of damaging the Dalsouple® floor coverings, an effective passive protection (such as a floor mat) should be placed at the entrance of rooms where tiles have been laid.

# 8 Installation method

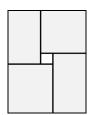
## Polyurethane and acrylic adhesive:

Once the floor has been traced to prepare the positioning of the tiles, the floor is then coated with adhesive (see "Choice of adhesive"). For aesthetic reasons, we recommend that the tiling operation begin at the center of the room going gradually towards the walls.

We also recommend that the tiles be laid in a "stone wall" way that eliminates the alignment constraint joints (checkerboard)



The cutting tolerances of the tiles associated with changes of installation teams may require the re-cutting of the slabs in order to avoid losses of alignment of the tiles as described below:



The bonding surfaces of Dalsouple® floor tiles have been sanded. The back of the tiles must therefore be brushed slightly prior to installation. Doing so will ensure that the surface is free of any material, debris, residue or other foreign particles that could interfere with bonding.

The use of hot melt seam is prohibited (it would be a cold bonding without real mechanical resistance). The tiles are to be glued flat, without stress, edge-to-edge with no gap between them; the corners must be in perfect contact with no spaces in case of checkerboard installation.

The formulation of the Dalsouple® tiles allows them to be perfectly butt-jointed (edge-to edge).

Any excess adhesive should be cleaned immediately as its removal becomes delicate once it has dried.

For whatever reason, any interruption of the installation must allow its resumption in the same conditions.

All surfaces to which glue has been applied must receive a tile; even if it is just partly glued. At the resumption of the installation, additional glue will be applied to finish the bonding.

Indeed once the glue has dried it cannot be removed without degradation of the floor's flatness and the ability to lay the tiles edge to edge.

The job site must be fully completed before opening it to foot traffic.

If it is not possible, all such areas must be fully bonded and carefully protected from damage until the project is completed.

Do not walk or press on the tiles until the adhesive has fully dried. Adhesive that has not dried completely may be expelled under the contact points and the flatness of the tiles may be affected.

The tiles must be laid without any stress and must be followed immediately by light and careful pressing with a suitable cork squeegee. Pressing by hand should be avoided as it may not be uniform.

In order to completely remove trapped air bubbles and ensure that the adhesive is uniformly spread over the entire underside of the tile, a second pressing operation is performed 30 min. to 1 hour after installation (depending on the adhesive and weather conditions – refer to the adhesive manufacturer's recommendations).

Pressing operations should be performed with a 50 kg roller minimum in order to have a continuous layer of glue under in contact with the back of the tile.

Tile with a thickness equal or higher than 3 mm must be pressed with a roll of 60Kg to 80Kg in order to insure that the glue is fully in contact with the back of the tile in a continuous layer; otherwise there may be a risk of curling of the edges.

As a guide, bonding is considered complete when substantial mechanical force is required to remove the floor covering; the floor or the substrate would be partially damaged.

The tiled area may be opened to foot traffic 48 hours after laying.

# Contact adhesive:

The organization of the workplace is the same as for PU and acrylic adhesives.

The two faces to be bonded should be covered with contact adhesive display before laying the tile on its support (see our recommendations above for the choice of glue).

Adhesion is immediate and a pressing must be carried out immediately with an adapted cork squeegee to optimize bonding. A 50Kg roll pressing will finalize it.

The opening to foot traffic is almost immediate.

#### Dry glue:

The organization of the workplace is the same as for PU and acrylic adhesives and installation easy.

The installation area must be thoroughly cleaned (dusts, hairs, ...)

Protection paper on the rear face of the tile must be removed prior to lay the tile or step by step in case of large tiles.

The presence of bubbles between the dry adhesive layer and the rubber tile has no effect on the adhesion efficiency and will have no effect on the final appearance of the floor.

In order to benefit from the performance of this glue and to optimize the quality of the seams between the tiles, the contact must be slightly forced at the time of installation.



DalAdhesive eliminates the risk of misalignment of tiles egdes. Indeed the edge of the tiles can be forced into position. Just then press flat the slight bending of the tile for it to regain its flatness, this forced flattening has no effect on the adhesion of the product over time:



The opening to foot traffic is almost immediate.

# 9 Installation on floors with under floor heating

Dalsouple® tiles may be laid on floors with under floor heating.

The substrate must be perfectly stabilized (refer to the under floor heating manufacturer's recommendations).

The under floor heating system must be turned off at least 5 days before laying the Dalsouple® tiles. Once the adhesive has dried, restart must then be progressive and spread over 1 week.

The adhesive for floor without underfloor heating is suitable for floors with underfloor heating.

# 10 Installation without adhesive (loose lay)

Some references of Dalsouple® tiles must be loose-laid (without adhesive) as their high density and weight make them self loose laid.

Nevertheless they can be glued after a proper sanding of their back for the DalSport and DalEquipe tiles.

Their great mechanical resistance makes them essential in areas of intensive mechanical aggression (ice rink, heavy logistics areas ...).

Their special design allows them to mechanically interlock with one another, like a puzzle, allowing them to be disassembled and reassembled as required.

These tiles must be laid with a 1 cm expansion joint along the perimeter of the area and around all fixed points in the site (along walls, partitions, pillars, furnitures, etc.).

If this instruction is not respected, the tiles will eventually begin to become deformed and/or overlap one another. In this case, the only way to free them would be to cut around the fixed points.

The substrate must be prepared in the same way as for any Dalsouple® bonded floor covering.

The humidity rate is not an important factor in securing these loose laid tiles. They must be stored at the work place at least 48 hours before laying operations begin. Laying operations must be performed as quickly as possible in order to accelerate its stabilization.

It is recommended that the corners of the tiles be bending downward slightly when laid to facilitate their placement and attachment.

These tiles may be bonded. In this case, refer to the recommendations concerning installation with adhesive.

In heavy traffic areas such as in working areas with machines traffic, sections subjected to machinery rotation must bonded according to our recommendations concerning bonded floor tiles. Failing this, the tiles may come apart.

# 11 Work area cleaning and preparation for foot traffic

To ensure a complete success for the preparation of the surface of the tile our instructions below are imperative.

It is recommended to prepare the work area and be equipped so that nothing can come pollute the wax-up area (work area must be as much as possible closed to traffic and air currents, adapted equipment may be required: overshoes, closed clothes, etc ...).

After drying and before it is opened to foot traffic, the work area must be carefully cleaned. All traces of dust, dirt, grease, sand or other debris must be completely removed.

1 / Apply on the surface to treat the stripper Dalsouple® DSD 10 (5 liters per 100 sqm) with a mono brush and a green disk (3M Scotchbrite Classification for discs)

The tiles processing speed by the mono brush should be at least 2 min / m², the cleaner, transparent at the time of application, must become opaque and of the color of rubbed tiles. This is a simple way to ensure that this light sanding is well carried out.

Rub the tile covered with DS10 with the mono brush and green disk during 10 minutes (around 5sqm at a time) and then rinse while sucking the excess of liquid.

Drying is done with an absorbent cloth leaving no fiber or debris on the ground (indeed they would be encapsulated by the wax).

The surface of the tile must have a matt aspect.

When the floor is clean and dry, apply liquid wax POLISH Dalsouple® CLD 50 with a spray system that will ensure a good distribution of the liquid on the surface. It is also possible to simply pour it.

Using a micro brush fiber fabrics or a foam brush or polisher according to the surface to be treated, spread the wax over the entire surface to be treated by crossing movements to form a thin layer that will dry quickly (1 liter per 50m²).

The wax should be laid in two crossed layers. Allow the wax to dry 1 hour between each coat.

This first layer of wax will form a film which will feed and protect the surface of the tiles. The success of this operation is very important as it will facilitate its maintenance.

In case of high traffic or high sun exposure do not hesitate to renew in the month on a clean, dry floor.

Dalsouple® also proposes gloss or matte-finish waxes.

## 12 Maintenance

## Routine maintenance

- A periodic maintenance in accordance with our recommendations is necessary to maintain the aesthetic appearance and service life of Dalsouple® floor coverings.
- The first application of wax is imperative to insure easy maintenance operations.
- The day to day cleanings are performed with a regular foam or microfiber mop or brush mono low speed or red disc with auto washer with the STRIPPER Dalsouple® DSD 10 (5 liters for 100m²) diluted four times. Spread the mixture, leave it for a few minutes without letting it dry, suck the product and the residue before drying, rinse thoroughly with clean water and let dry. No residue should remain on the ground

# Enhance maintenance (floors strongly dirt)

- If routine maintenance of the Dalsouple® flooring is no longer satisfactory, the wax film may be damaged or dirt has become captured in the wax as a result of improper cleaning. In this case, we recommend a deep cleaning of the surface and complete rewaxing in accordance with Dalsouple® recommendations (chapter 11 Work area cleaning and preparation for foot traffic)

# 13 Stains

In all cases, stains must be immediately treated in order to facilitate their removal without consequence for the Dalsouple® flooring.

Certain types of stains require special treatment (contact us)

Blouin Etienne (Quality Manager)

Signature

Society Stamp

DALSOUPLE SN

4, rue du Champ de Montigny Z.I. des Brunelleries 49080 BOUCHEMAINE

Tél. 02 41 23 34 01 - Fax 02 41 23 34 02