



DINOFLEX Manufacturing LTD. [®]

Sport Mat Flooring & DINOMAT[®] **Installation / Maintenance Guidelines**

DINOFLEX rubber mat flooring is a high quality recycled product. In order to enjoy your new floor fully, proper installation procedures must be followed. The following installation tips are guidelines only... please read this manual before laying **DINOFLEX Sport Mat Flooring & DINOMAT[®]**.

On receipt of merchandise:

- Inspect your shipment for damage
- Verify packing slip
- Store in a dry, heated, clean area
- Adhesives must not be exposed to freezing temperatures
- Read technical data sheets and material safety data sheets for adhesive

Note:

Rubber will expand and contract with temperature and humidity changes. (see Section III, 1)
 Petroleum distillants (e.g. solvents) will damage tiles. See test results for other harmful chemicals.
 Keep DINOFLEX Sport Mats dry. Wet mats will cause adhesion problems.
Improper installation will void warranty.

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Section I

Tools & Accessories

A) Tools and safety equipment required:

- Rubber gloves
- Safety glasses
- Rubber boots
- Knee pads
- Utility knife
- Measuring tape
- Linoleum roller (50 – 70 lb)
- Straight edge
- Chalk line
- Drill and mixer for adhesive
- V-notch trowel 1/16" (1.6mm)
- Mineral spirits

B) Outside interlocking edges

With interlocking Sport Mats, DINOFLX includes approximately 10% of the outside edging with every order, unless otherwise requested. This edging gives the interlocked mat a straight edge so reducer strips can be applied. It can also be used against walls, where possible, to avoid having to cut tabs off.

C) Reducer strips

DINOFLX carries four types of reducer strips:

- 5/16" (8 mm) black solid core (12' lengths)
- 3/8" (10 mm) black solid core (12' lengths)
- 1/2" (12 mm) black solid core (12' lengths)
- 3/4" (20 mm) black solid core (12' lengths)

Attach reducer strip to mats with compatible adhesive or caulking, non-solvent based.

D) Adhesive

DINOFLX recommended adhesive:

- Chemrex CX 941 Polyurethane (single component) "VOC Compliant" - 2 gal. pail
- Chemrex CX 941 Polyurethane (single component) "VOC Compliant" - 5 gal. pail

If adhesive should freeze accidentally, please call DINOFLX Manufacturing LTD. before use.

Toll Free Tel: 1-877-713-1899

E) Sealer

For most installations it is not necessary to seal or coat DINOFLX Sport Mat Flooring. Sealants and waxes may alter the surface characteristics of the mat. If the customer requires a sealant, see section "VIII Sealer".

Section II

Preparation of the Sub-Surface

A) Concrete sub-surfaces

New concrete sub-floors must be thoroughly cured and free from hydrostatic pressure before DINOFLX Sport Mat Flooring is installed (a minimum of 28 days after pour). Consult adhesive specifications for allowable moisture tolerance.

If existing concrete is too rough, apply a Portland cement based leveling compound for a smoother surface, allowing a minimum of 7 days for curing. If finishing cement is not used, the amount of adhesive needed will be greater. Once all surfaces are level, make sure total surface is clean and dry before starting the installation.

If the concrete surface has a layer of paint, dirt, oil, or contamination, a 25% solution of chemical grade muriatic acid and water (1 part acid to 3 parts water) will create a permanent bond by roughing the concrete surface. Rinse thoroughly and allow to dry. Any separation of concrete layers, heaving, etc. is the sole responsibility of the installer and/or owner.

Insure good drainage of the area by having either a well defined gradient of the surface, or well placed drainage pipes in the lower spots.

Important:

Moisture is the single greatest cause of bonding failure! The sub-surface must be clean and dry. A rough or uneven sub-surface will result in an uneven appearance of the rubber flooring.

B) Wooden sub-surfaces

Rubber mat installations over a wooden sub-surface are not ideal, as trapped moisture may cause deterioration and premature rotting of the wood. If this type of installation cannot be avoided, the following recommendations must be followed:

Recommendations for plywood sub-surfaces are as follows:

- Plywood underlayment shall be exclusively COFI EXTERIOR "SELECT TIGHT-FACE" (SEL TF) grade plywood according to the COFI classification and conforming to CSA-0121(B+CC) standard for Douglas fir.
- Plywood surfaces must be installed smooth face up.
- When the subfloor is in direct contact with the ground, the plywood shall have at least an 18" (45 cm) cross-ventilated air space between the underside of the floor and the ground. Under no circumstances shall any floor material be laid over wood or subfloors that are subject to conditions which might cause buckling or rotting of the wood.
- On any soft floor covering installation, the plywood shall be dry and the moisture content shall not exceed 10% when measured with "Delmhorst Wood Moisture Tester".
- Plywood substrates shall consist of a 3/4" (19 mm) thick (minimum) plywood underlayment. Each sheet of plywood is to be spaced 1/16" (1.6 mm) apart. For additional information, refer to Table I in "Recommended installation specification for sheet vinyl flooring, flat laid, fully adhered to the floor" published by the Resilient Floor Covering Institute or to the NFCA's floor covering specifications manual.

Note: Wooden sub-surface installations are at the sole risk of the installer, general contractor, or owner.

Section III

Before Starting the Installation

1. Rubber will expand and contract with temperature and humidity changes and a mat laid in the morning hours at 32°F (0°C) would be a different size than a mat laid at 68°F (20°C) later in the day. Therefore, before starting the installation, lay out ALL the mats you will be installing on the next day, on or near the sub-surface. Allow mats to equalize to ambient temperature.

2. The sub-surface must be level, clean, and dry. It is recommended that all concrete slabs be tested for hydrostatic pressure. Simply test by placing a rubber mat 2x3 ft (60x100cm) over concrete and tape edges. Moisture or dark areas that are noticeable under a mat after 24 hours indicate that the area is not considered to be dry.
3. During storage, DINO FLEX Rubber Tiles must be kept dry, and adhesive must be stored above 50°F (10°C) in a dry, heated space. If adhesive should freeze accidentally, please call DINO FLEX Manufacturing LTD. before use. **Toll Free Tel: 1-877-713-1899**
4. Check the room temperature.
 - a) Temperature range for adhesive use: above 50°F (10°C) and below 104°F (40°C)
 - b) In-floor radiant heat should be shut OFF. Glue will dry too quickly resulting in adhesion problems.
5. Higher temperatures will increase the curing rate and reduce the working time (pot-life) of

adhesive. **Follow instructions on label of can!**

Section IV

Installing Sport Mat Flooring

A) Arranging the mats

The installer should have all relevant information about the mat arrangement from the owner.

Occasionally uneven distribution of color granules may appear in a mat. This can be rectified by turning the mat over or installing it in a less visible area.

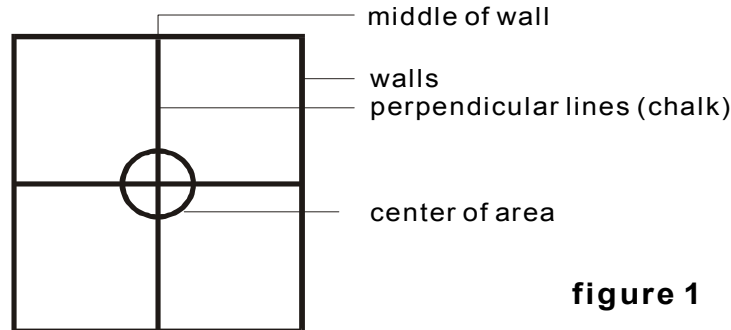


figure 1

Establish a starting course by finding the mid-point on all four walls. Use a chalk line and mark the two center lines across the whole area. Use the perpendicular chalk line as your starting point to lay out the mats (**see figure 1**).

B) Total glue down on hard surfaces

(e.g. concrete, wood)

This installation method is a must for, e.g. ice arenas.

Advantages

- mechanical stability (minimum expansion and contraction)
- safety precautions

Make two chalk lines on either side of the center line (see A) above), and measure the size of the Sport Mat (38") or the size of the DINOMAT[®] (either 48" or 72"). Start first row by laying a mat between center line and the chalk line. Start second row on either side of the center line towards the chalk line. Make sure that second row is installed by staggering mats. This will avoid any four corners from meeting at one spot (**see figure 2**).

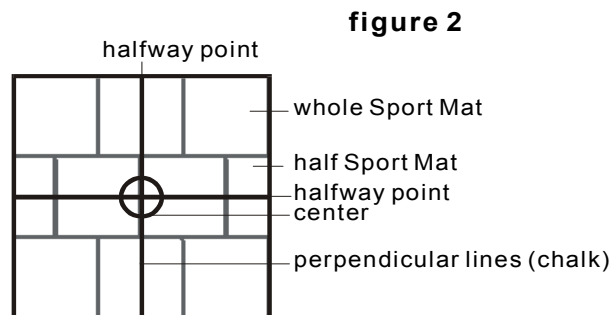
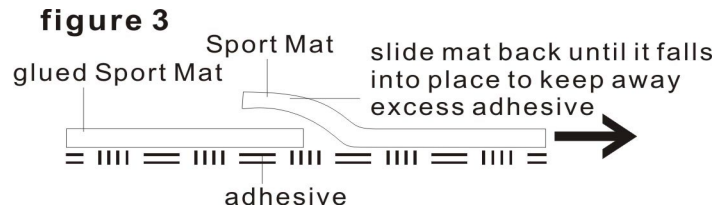


figure 2

Installation tip:

- Put the mat that your installing on top of the mat already glued down and pull towards the area you want to fill until the mat falls into place, then firmly press mat up to edge of existing mat. This will keep excess adhesive from protruding up between the seams, resulting in a cleaner finish, (**see figure 3**).



Roll each row when finished and roll total floor when completed. Roll floor in both directions. Avoid traffic on newly installed mats. Epoxy adhesive is slippery when first spread and mats will shift position even if only slightly disturbed. NO foot traffic of any kind should be allowed on mats for the next 12 hours (24 hours for ice skate blade and golf shoes...72 hours for maximum strength).

Installation tips:

- A 50 to 70 pound roller should be used to ensure the underside mat surface is fully bonded to the glue and sub-floor. Too much rolling or too heavy a roller will cause the mats to stretch. When this happens the mats will tend to return to their natural/original size before the glue dries causing a small gap to appear between the mats.

Guideline: 6mm thick floor: use a 50 lb. roller.
 12mm thick floor: use a 70 lb. roller.

- Do not allow adhesive to cure on your hands or the flooring. Immediately wipe off excess adhesive using a damp cloth with mineral spirits (use sparingly). Cured adhesive is very difficult to remove. We strongly suggest wearing gloves when applying adhesive.

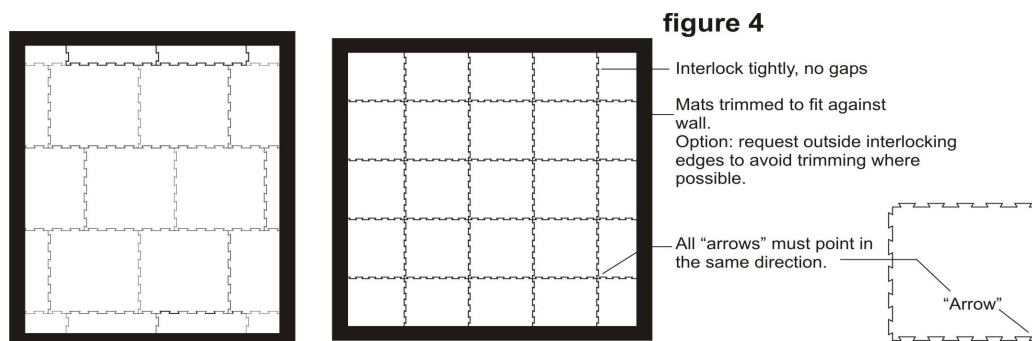
C) Interlocking system

This method is for indoor, totally dry areas only.

Advantages

- reversible, thus doubling the life of the floor
- no adhesive required
- easier, faster installation
- removable

There are a few different options for the installation of the interlocking mats. It is not necessary to stagger the interlocking mats, although you may feel this will give you the appearance you desire (**see figure 4**). The staggered method is recommended to provide higher stability. When installing interlocking mats, make sure the interlocks are tight with no gaps showing. If they are not kept tight, the mats will not line up and the interlocking pattern will be distorted (out of alignment).



1. Make sure that all mats are laid down with the "arrow" pointing in the same direction (**see figure 4**).
2. The interlocking mats are delivered with outside interlocking edge pieces. The strips can be used to butt mats up tightly against a wall. The other option is to trim off the interlocking tabs for a snug fit.
3. Sport Mats (square cut or interlocking) should not be laid on top of carpet as the floor will shift and move.

Section V **Installing DINOMAT®**

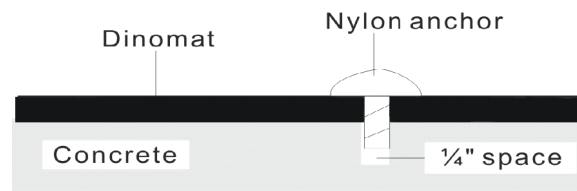
Please refer to Sport Mat Flooring installation for glue down method.

Note: Install mats with “Made in Canada” side down.

Anchoring DINOMAT® on concrete:

- Position DINOMAT® on surface with no space between them.
- 16 to 20 nylon anchors should be used to hold each mat in place.
- Use ¼” drill with masonry bit.
- Drill hole through mat into cement, about ¼” deeper than the anchor (dust tends to go back into hole).
- Hammer anchors into mat. Dip anchor into liquid soap first to make job easier. **(see figure 5.)**

figure 5



Section VI **Measuring & Cutting the Mats**

Any knife used for cutting DINOFLX Sport Mat Flooring or DINOMAT® must be sharp. Lay mat on a piece of wood (e.g. 2" x 4") hold the straight edge on the cut line, and cut with knife. Let the mat droop or hang over the edge of the wood base and keep scoring cut until separated. For odd angles, circular patterns, etc. a cardboard template is suggested.

NOTE: For cutting around posts, drains, etc. use saber saw. Make sure that you measure carefully so that the mat will fit properly and does not leave gaps, resulting in the installation being out of alignment.

Section VII **Adhesives**

- ▶ **Moisture is the single greatest cause of bonding failure!**
- ▶ **Higher temperatures and humidity decrease pot-life of adhesive.**
- ▶ **Use safety glasses, rubber boots, and rubber gloves when applying adhesive.**
- ▶ **Room must be well ventilated.**
- ▶ **For first aid and safety instructions see can labels, technical data sheets, and MSDS for adhesive.**
- ▶ **Please read label on adhesive packaging thoroughly before starting with the installation.**

Recommended adhesives:

Brand	Type	Packaging	Spread Rate
Chemrex CX 941	Polyurethane (1 component) – VOC Compliant	2 gallon pail (7.6 L)	150 ft ² /2 gallon pail
Chemrex CX 941	Polyurethane (1 component) – VOC Compliant	5 gallon pail (19 L)	375 ft ² /5 gallon pail

Note: The above spread rates are based on DINOFLX recommendation of using a 1/16” (1.6 mm) V-notch trowel.

Section VIII

Sealer

DINOFLEX Sport Mat Flooring - Sealant Application and Maintenance Guidelines

Recommended Products: TASKI Vision (mat sealant)
 TASKI Combiplus or TASKI Wiwax (neutral cleaning detergent)
 TASKI - ICE (amine floor stripper)

A) Post construction

- Sweep the floor. Dry vacuum to ensure any fine soil is removed.
- Wet scrub floor with Taski Profi cleaner (6 - 8 oz/gl of water) using buffer or autoscrubber with Taski contact pad or soft nylon brush.
- Wet vacuum soiled solution, rinse, and allow to dry thoroughly (6 – 8 hours).

B) Initial application of sealer

Apply 3 thin coats of Vision Matte.

- Allow proper drying time before applying next coat.
- Note: Apply floor finish with synthetic wax mop. While the finish is wet, buff the floor with floor buffer (150 – 300 rpm) and soft nylon brush. This application drives the finish into the floor and prompts proper sealing and coating of the floor.

C) Daily cleaning or as needed (sealed floor)

- Dry vacuum floor thoroughly.
- Auto scrub or wet mop floor using TASKI Combiplus or TASKI Wiwax.

Note: In an office environment, the floor may become scuffed due to heavy foot traffic and may require more frequent spray or dry buffing with a mint or white pad. When spray buffing use TASKI Wiwax diluted 50/50 with water.

D) Periodic cleaning as needed (sealed floor)

- Dry vacuum floor thoroughly.
- Wet scrub floor with TASKI Profi (4 oz/gl). This application is done with an autoscrubber or buffer and wet vacuums. Use TASKI purple pad for scrubbing the floor.
- Allow solution to remain on the floor for 5 minutes.
- Wet vacuum soiled solution. Rinse and allow to dry (1 – 2 hours).
- Apply 1 – 2 thin coats of TASKI Vision Matte using wet buffing with soft nylon brush.

E) A few tips about sealers when working with rubber floors

- Use high suction CFM (cubic feet per meter) vacuum to pick up dust.
- Wait for floor to dry between applications of floor finish or sealer.
- Apply floor finish (thin coats) with wax mop and follow floor buffer with a soft nylon brush.
- For large areas, use an autoscrubber with a contact pad or soft nylon brush to clean the floor daily.
- For stripping a rubber floor, use TASKI Ice-It and nylon brush.
- For poorly maintained floors, it may be necessary to continue cleaning with Ice – It for an extended period.
- For food areas: cleaning should be done with Profi (2 – 4 oz/gal).
- Removing gum: use a generic gum remover.
- For areas with high traffic, floors may be top scrubbed and recoated as needed.

PROPER CARE OF YOUR DINOFLEX FLOOR WILL ENSURE A LONG LASTING SURFACE

Section IX General Cleaning & Maintenance (no sealer)

Typically, DINO FLEX Sport Mat Flooring requires less maintenance than other types of flooring. Clean and maintain on a regular basis as required. Vacuuming then damp mopping is the preferred method, very little or no detergent is necessary. Change water frequently. Sealing or coating is not necessary and is based purely on the customer's preference. If a particular appearance is desired (shiny, dark wet look, etc.) DINO FLEX recommends that the cleaning product used be "non-aggressive" (e.g. solvent and acid free). Products containing solvents and acids will attack the composite structure of the Sport Mat Flooring and cause deterioration. Sealants, waxes, etc. can alter the surface characteristics and appearance of the Sport Mat Flooring. DINO FLEX does not assume any responsibility of additives causing damage to its surfacing.

A) For fitness center applications:

- When cleaning fitness equipment with disinfectant, or other strong cleaners, be careful that overspray or excess cleaner does not drip onto the rubber flooring. Strong chemicals may cause the surface to deteriorate, reducing the life of the floor.
- DINO FLEX suggests rotating the interlocking Sport Mats from high traffic areas to lower use areas to further extend the life of the floor.

B) For ice arena applications:

- Use a neutral pH cleaner, e.g. 7 – 8
- Then use a cleaner, e.g. "Taski", (the "Profi" solution - 3 to 4 oz. per gal. of water)
- A low RPM scrubber, e.g. between 200 - 300 revolution per minute, e.g. "Clark"
- Use a soft nylon brush, e.g. bristles 1½" - 2" long.

Note: To find out if a brush is too hard, test it on the back of your hand. If your hand hurts, use a softer brush.

The ideal machine to use is one that combines all steps, i.e. vacuum, wash, rinse, dry. (e.g. Whittaker)

If a scrubber machine is used, these steps should be taken:

- Mix soap with water.
- Use string mop to dampen floor.
- Let solution act, (approx. 10 minutes).
- Use scrubber machine.
- Use clear water to rinse.
- Remove excess water for quicker drying.

Note: To maintain the nice appearance of the Sport Mat Flooring, dirty water must be completely removed.

Section X Disclaimer

The installation guidelines in this manual represent a typical installation work procedure. Every site is different and DINO FLEX does not claim to have covered all possible installation circumstances in these guidelines.

DINO FLEX Manufacturing LTD. does not warrant any installation work not directly performed by DINO FLEX, and specifically disclaims liability for any direct or indirect personal injury, property damage or other costs or losses resulting from installations or applications by third parties. Please see the DINO FLEX Limited Warranty for the particulars of warranty coverage relating to DINO FLEX products.

Contact DINO FLEX Manufacturing LTD. at (250) 832-7780 or fax us toll free at 1-800-305-2109 if further information is required.

Section XI**Weights & Measures****General packaging information:**

All DINO FLEX products are packaged on wooden pallets, with corner protectors, polyethylene shrink wrap, and steel strapping (when necessary).

A) Sport Mat Flooring:

NOTE: Weights are approximate and may change without notice.

Dimensions:	Square cut	38"x38" (965 mm x 965 mm)	10 square feet
	Interlocking	37"x37" (940 mm x 940 mm)	9.5 square feet

Thickness:

5/32" (4 mm)

1/4" (6 mm)

5/16" (8 mm)

3/8" (10 mm)

1/2" (12 mm)

Typical weight per mat:

10 lbs (4.5 kg)

16 lbs (7.3 kg)

20 lbs (9 kg)

23 lbs (10.5 kg)

27 lbs (12 kg)

Mats per pallet:

200

150

120

100

80

Pallet (net wt.)

65 lbs (29.5 kg)

B) Dinomats:

NOTE: Weights and measures are approximate and may change without notice.

Dimensions:	Square cut	48"x72" (1219 mm x 1829 mm)	24 square feet
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Thickness:

1/2" (12 mm)

3/4" (19 mm)

Typical weight per mat:

80 lbs (36 kg)

100 lbs (45.5 kg)

Mats per pallet:

25

25

Pallet (net wt.)

75 lbs (34 kg)

C) Acoustic Mat:

NOTE: Weights and measures are approximate and may change without notice.

Dimensions:	Square	39.4"x39.4" (1000 mm x 1000 mm)	10.83 square feet
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Variance: +/- 10% length, width, thickness.

Thickness:

1/8" (3 mm)

Typical weight per mat:

7 lbs (3 kg)

Mats per pallet:

300

Pallet (net wt.)

65 lbs (29.5 kg)

D) Adhesive:

1) Chemrex Polyurethane 941 (V.O.C. compliant)

- 1 component polyurethane adhesive
- 2 gallon pail: 27 lbs (12.5 kg)
- approximate coverage: 150 square feet per pail using a 1/16" (1.6 mm) trowel

2) Chemrex Polyurethane 941 (V.O.C. compliant)

- 1 component polyurethane adhesive
- 5 gallon pail: 55 lbs (25 kg)
- approximate coverage: 375 square feet per pail using a 1/16" (1.6 mm) trowel

Note: Weights and measures are approximate and may change without notice.

Conversion chart:	1"	=	2.54 cm,
	1'	=	30.48 cm
	39.4"	=	1m