



# Basic Installation Guide

## **Conductive Sheet Rubber Flooring M2000 Conductive Plus**

## Overview:

This installation guide covers the general aspects related to the installation of Indelval rubber floorings. If you need further assistance please contact:

Indelval's Technical Department  
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[www.indelval.com](http://www.indelval.com)

Indelval rubber floorings:

- Are designed for high traffic in commercial environments, health care, education, public access buildings, industries, transport and sport areas. Such as: hospitals, clinics, schools, universities, offices, airports, museums, libraries, shops, laboratories, etc.
- They have been designed to be applied indoors as they are not fit for installation outdoors.
- They must be installed by a professional installer to guarantee adequate performance.
- Incorrect installation of conductive flooring may be dangerous for people and equipment inside the room. Install only with qualified personnel certified by Indelval.

Handling of materials and storage:

- Follow the instructions on the labels of materials.
- Handle materials with care to prevent damage. Store all flooring products and accessories in a dry interior area, protected from the damage caused by temperature extremes, weather, and job site conditions.
- Store resilient sheet flooring rolls standing up, with capped end down. Store cartons of tile or stair threads flat and squarely on top of one another. Do not lie on edge.

Sub floor preparation:

- Job sites must be absolutely isolated from weather conditions. Allow other finishing trades (works in roofs, ceilings, windows, doors, painting and lighting) to complete their work before beginning the installation.
- Acclimate the area to be installed to a stable condition of 20 °C ± 5 °C and 50% relative humidity, during installation and 72 hours after the job is concluded.
- Acclimate materials for a minimum of 48 hours before installation.
- Areas subject to direct contact with sunlight (e.g. through doors or windows) must be covered with cardboard or a similar material during installation and 72 hours after the job is concluded, so as not to affect bonding properties of the adhesive.
- Check labels on materials in order to verify that they match your PO. Do not install products from different batches.

## Preparation over concrete screeds:

- **Surfaces to receive rubber floorings shall be permanently dry, clean, smooth, and structurally sound.**
- When preparing concrete screeds, applicable local regulations must be followed. If there was no valid regulation, the provisions of standard ASTM F 710 "Preparing Concrete Floors to Receive Resilient Flooring" will apply.
- Concrete screeds must have a minimum compressive strength of 3000 psi (210 kgf/cm<sup>2</sup>, or 21 MPa) after 28 days.
- The concrete screeds on which the rubber flooring will be installed must be permanently dry, clean, smooth and structurally sound. They shall be free of dust, solvent, paint, wax, oil, grease, residual adhesive, adhesive removers, film-forming curing compounds, silicate penetrating curing compounds, sealing, hardening, or parting compounds, alkaline salts, excessive carbonation or laitence, mold, mildew, and other foreign materials that might prevent adhesive bond.
- Measure residual moisture of the concrete screed before installation. Use any of the following methods to determine acceptable values before installation:
  - ASTM F 2170 "In Situ Relative Humidity Test": <75% HR
  - CM test: <2% (in concrete screeds)

- A vapor barrier (or vapor retarder) must be installed directly beneath the screed in order to avoid detachment caused by ascending moisture.
- The screeds shall be smooth in order to avoid irregularities, roughness or any other defect from being transferred (become visible) onto the surface of the installed rubber flooring
- Before installation, debris must be removed from the surface using a broom or a vacuum cleaner.
- When removing residual adhesive, paint or any element attached to the surface, do not use chemical methods. Use abrasive methods, instead, such as scarifying, polishing, sandblasting, etc. Rubber floorings cannot be installed over concrete screeds with residual asphalt adhesive.
- Surface crackles, cuttings, indentations, control joints or any other type of non-moving joint must be filled or smoothed with patching compound.
- Caution: Expansion joints or any other moving joint on the surface of concrete shall not be filled with patching compound or covered with resilient flooring. Use an expansion joint covering system.
- Concrete screeds must be porous. In order to test this, place a drop of water on the surface of the screed. It should be absorbed by the screed within 5 minutes in order to be considered porous. If the screed is not porous, please contact Indelval's Technical Department
- Application of Neoval's installation accessories:
  - Neoval Primer 1/10: Sweep or vacuum the surface. Dilute 1 part of emulsion in 10 parts of water. Apply uniformly on the entire surface using a hand roller, brush or dryer. Let evaporate. (1 or 2 hours approximately).
  - Neoval NL patching compound: Apply two coats with a metal trowel. Let it dry, and sand between coats. Sweep or vacuum all the dust before sticking.
- Do bonding tests(1 every 100 m<sup>2</sup>). Evaluate after 72 hours in order to determine if the material is well bonded to the substrate, if the screed was well prepared to receive the flooring or to detect any adverse condition. Installation will not begin unless the result of the test is satisfactory.
- For installation on other types of subfloors or in refurbishing jobs, see the specific guide. Download from [www.indelval.com](http://www.indelval.com)

### **Installation of Indelval conductive sheet rubber flooring:**

#### **Important:**

All factory edges must be trimmed. The best way to achieve this is the "double cut" method: overlap the two sheets and cut 1 (one) cm per side.

#### **Note:**

There is no need to use conductive adhesive for installation. There is no need to use copper grid, either.

- Use a broom or vacuum cleaner to clean the entire surface that will receive the flooring.
- Unwrap rubber flooring sheets and allow them to rest.
- Use the dry lay method (no adhesive while laying or cutting the flooring). Do not dry lay more flooring than what will be installed that day.
- The End User, Architect or Designer should specify the desired direction and layout. We suggest installing in the direction of the longest part of the room or following the main entrance door. It is important to know how the calculation was made in order to avoid material shortages.
- Mark a start line in the substrate.
- Cut the sheet to the desired length.
- Seams must be overlapped by 2-3 cm.
- Cut the sides of the area using a scribe or other cutting tool. End cuts can be made now or after the bonding.
- All factory edges must be trimmed. The best way to achieve this is the "double cut" method: overlap the two sheets and cut 1 (one) cm per side:
  - Place a thin steel strip under the overlapped edges to cut. This will avoid damaging the cutting blade.
  - Mark a chalk line at 1 cm from the edge of the top sheet. Using a utility knife with straight blade cut the top sheet and the bottom sheet simultaneously through the line. Use a metal ruler as a guide.
  - Remove the trimming of both sheets and remove the steel strip.
  - To avoid a burred edge, if the bottom sheet was not properly cut first hand, used a hook blade to finish the cut.

### **Bonding:**

- Use the adhesive according to the Adhesive Recommendation Table.

- Uplift a workable area. Vacuum the subfloor and the back of the flooring to remove dust or any debris.
- Spread adhesive evenly.
- Fold the sheets back and comb the adhesive perpendicular to the seam line. This prevents adhesive from contaminating the seam area. Do not allow any puddles or lumps of adhesive.
- Be sure that trowel notches are as recommended and kept clean. We do not recommend re-notching a trowel by hand. Replace the trowel as necessary to insure proper coverage.
- For porous or rough substrates the sheets may be placed into adhesive after 10-20 minutes of open time.
- Work off the flooring to prevent adhesive from oozing, shifting of material, or indentation from adhesive displacement. If you must work on top of the material, use large kneeling boards.
- Check that you have adhesive transfer before continuing. Lay seams together without stress and do not force seams together.
- Immediately roll the flooring in both directions with a 45 kg 3-section roller ensuring complete coverage of adhesive on the back of the flooring. Make sure the adhesive ridges are flattened into a uniform film thickness. This is important to provide optimal indentation resistance.
- Wait a minimum of 6-12 hours for foot traffic.
- For all applications, wait 48 hours for rolling traffic or point loads.

### Ground Connection:

#### Important:

- At least one ground connection is needed every 50 m<sup>2</sup>.
  - Do not use copper grid in all the room.
  - Once the installation is ready, it is necessary to take some measures in order to secure the ground connection. See local regulations.
- Connection method for color C100:
    - The surface of the rubber floor covering must be connected with the ground connection.
    - A flat copper grounding plate can be used for this purpose.
  - Connection method for other colors:
    - The base of the rubber floor covering must be connected with the ground connection.
    - A copper tape (width: 2 to 5 cm - Long: 1 meter approx. – Thickness: 0.05 to 0.10 mm) can be used for this purpose.
  - The flooring installer must leave the floor covering with the connection system ready. A licensed electrician is responsible for the final connection.

### Installation of Wall base

#### Preparing walls to receive wall base:

- Remove any excess material from the joint between the base and the wall. Make sure the wall is smooth, dry and clean.

#### Semi sanitary wall base:

- Prepare the sections according to the lengths required. Set into the adhesive that comes with the product. Use a hand roller to make sure the material is in contact with the adhesive. Take care not to stretch the material as it may then shrink and lift.
- Inside and outside corners: Seams on the inside and outside corners of the semi sanitary wall base should be heated. The wall base may be installed continuously or it may be cut into individual pieces for better handling.

#### Sanitary wall base:

- In this case, the rubber flooring will not be installed up to the wall; there will be a 10 cm gap.
- Once the screed and the walls are ready, and before installing the rubber flooring, install the S-16 profile in the perimeter.
- After finishing installation of the sheet rubber flooring, cut sections of the required length and width. Install these strips from the edge of the flooring, through the S-16 profile and up the vertical wall surface.

## Joint Welding:

### Important:

Indelval rubber floorings do not need to be sealed because they do not contain volatile plasticizers which may cause dimensional stability problems after installation. However, joint sealing may be recommended for decorative purposes or in areas with special requirements, such as laboratories, operating rooms, areas with intense wet cleaning or other areas with special hygienic requirements.

### Preparation:

- Cut seams net. Do not leave a gap at the seam. Seams must have been installed according to the "double cut" method.
- Groove or rout the seam to 2/3 the depth of the flooring material using a mechanical or hand groover. Do not groove or rout completely through the flooring material. Use a 3 mm wide blade to groove Indelval sheet rubber flooring.

### Joint Welding:

- Weld the joint with a heat gun fit for resilient floorings with a 4 mm nozzle. The working temperature is 400 °C to 500 °C.
- Practice on scrap material before beginning.
- Trim the welding thread when "cool to touch" using a trim knife with trim plate attached.
- Apply hot air to the joint in order to unify color.

## Final Care:

- Once installation is complete, protect finished sectors with corrugated cardboard.
- Do final cleaning according to Indelval's maintenance guide.

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## Adhesive recommendation:

Brand:	Contact adhesive	Dispersion adhesive	Reaction adhesive
Neoval	Neoval AD	Neoval DS	Neoval R
Mapei	Adesilex LP	Ultrabond ECO VS 90	Ultrabond ECO 571 2K
Thomsit	Thomsit K 182	Thomsit K 150	Thomsit R 710
Uzin	UZIN GN 222	UZIN KE 66 UZIN KE2000 S	UZIN KR 430

Trowel type:			Contact adhesive	Dispersion adhesive	Reaction adhesive
<b>Sheet system</b>					
Geo plus I Geo tx	2,0 mm	HG		A2	
Chronos plus I Chronos tx	2,0 mm	HG		A2	
Ecoval plus I Ecoval tx	2,0 mm	HG		A2	
Indelcol plus	2,0 mm	HG		A2	
Indelcol plus	3,0 mm	DB		A2	
Geo plus I Geo tx	3,0 mm	HG		A2	
Chronos plus I Chronos tx	3,0 mm	HG		A2	
Geo plus I Geo tx	3,0 mm	DB		A2	
Chronos plus I Chronos tx	3,0 mm	DB		A2	
<b>Tile system</b>					
Geo hm	3,5 mm	HG		B1 <sup>(1)</sup>	A2/B1
Viva hm	3,5 mm	HG		B1 <sup>(1)</sup>	A2/B1
Cerama	3,0 mm	HG	A4		
Textura	3,0 mm	HG		B1 <sup>(1)</sup>	A2/B1
Clasica	3,0 / 4,0 mm	HG		B1 <sup>(1)</sup> (3,0 mm)	A2/B1 (4,0 mm)
Leganti	3,0 / 4,0 mm	HG		B1 <sup>(1)</sup> (3,0 mm)	A2/B1 (4,0 mm)
Deco	3,2 mm	HG	A4		
Hm	2,7 mm	HG		B1	
Cerama	3,0 mm	DB			
Textura	3,0 mm	DB		B1 <sup>(1)</sup>	A2/B1
Clasica	3,0 / 4,0 mm	DB		B1 <sup>(1)</sup> (3,0 mm)	A2/B1 (4,0 mm)
Leganti	3,0 / 4,0 mm	DB		B1 <sup>(1)</sup> (3,0 mm)	A2/B1 (4,0 mm)
Deco	4,0 mm	DB	A4		
Hm	2,7 mm	DB		B1	
<b>Stairtread system</b>					
Deco tread	4,0 mm	HG	A4		
Cerama tread	4,0 mm	HG	A4		
<b>Special applications</b>					
M2000 conductive	2,5 / 3,0 mm	DB		A2/B1 <sup>(1)</sup>	A2/B1
Ecosport tx	4,0 / 7,0 mm	DB			B1
Guia	7,0 mm	HG			B1
Geo tx SE	7,0 mm	DB	-	-	-
Ecosport tx SE	7,0 mm	DB	-	-	-
Chronos tx SE	7,0 mm	DB	-	-	-

x<sup>(1)</sup>: In places with heavy rolling road, use reaction adhesive only.

-: No adhesive required.