

HERCULAN



Installation Manual

Re-Topping

Herculan BV has prepared this installation manual to assist applicators in the construction of a Re-Topping. Any references to consumptions are approximate due to variations of site conditions and application techniques. Before starting any work, the applicator must become familiar with all product installation procedures.

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Limitation

- Do not apply over damp or wet substrates.
- Minimum application and curing temperature 10°C.
- Maximum substrate temperature 30°C.
- Substrate temperature must be a minimum of 4°C above the dew point.
- Each individual layer must be installed within 48 hours after the installation of the previous layer.
- All tools and machinery should be cleaned immediately after final usage. For proper cleaning Herculan Solvent TC can be used.
- We advise you to read the Safety Data Sheets before installation. In this way you are prepared in case something unexpected happens.
- Please write down the batch numbers to simplify the traceability of the materials.

1. METHOD STATEMENT

1.1 SURFACE PRE-TREATMENT

Prior to installation of the system, it is important to ensure that the existing sports floor is properly prepared; cleaned (degreased), sanded, vacuum cleaned and free from any imperfections and substances such as grease, chewing gum, sand, stains etc., which could affect the long term performance of the Re-Topping system. Any damages, cracks etc., should be repaired prior to installation. Also make sure that the height of the floor socket covers is adjusted prior to installation. Wrap masking tape twice around the floor socket covers to be able to fill up the covers and to keep a gap afterwards between the cover and the rest of the floor. Wrap an extra tape once or twice around the cover to gain a little more space between the cover and the rest of the floor. Do this if you think the space will be too less after finishing the complete floor so that the cover cannot be taking out very well. Make sure the tape is tight and completely round. Put some vaseline type of material on the outside of the tape to prevent it to stick to material that will be installed against it so it can be taken out easily afterwards. After putting on the vaseline, place the covers back and start installing the Re-topping system.

Note: Pour the self-leveling material onto the cover at a consumption rate that is definitely more than the consumption rate of the rest of the floor to make sure the surface of the cover will not be lower than the surface of the rest of the completed floor. After drying of the self-leveling layer, sand the covers down to the height of the rest of the floor.

1.2 SYSTEM BUILD UP

Table 1 – System Build Up

Layer	Product	Consumption
Scratchlayer	Herculan EX 800	0,15 kg/m ²
Self-leveling layer	Herculan EX 800	1,3 kg/m ²
Top Coat	Herculan PU 100 W / PU 145	0,15 kg/m ²

1.3 SHORT INSTALLATION MANUAL

1. Herculan EX 800, scratchlayer

- The existing sports floor must be fitted with the Herculan EX 800, using a straight trowel.
- Herculan EX 800 is a 2-component material, consisting of a Resin and a Hardener, which must be mixed to each other prior to installation.
- Consumption approximately 0,15 kg/m²
- The application time is about 15-20 minutes at 20 °C.
- Herculan EX 800 is recoatable after 16 hours and within 48 hours at 20 °C

2. Herculan EX 800 self-leveling, base layer

- The Herculan EX 800 scratchlayer must be fitted with the Herculan EX 800 self-leveling layer, using a Swedish knife or straight or toothed trowel.
- Herculan EX 800 is a 2-component material, consisting of a Resin and a Hardener, which must be mixed to each other prior to installation.
- Consumption approximately 1,3 kg/m²
- The application time is about 15-20 minutes at 20 °C.
- Herculan EX 800 is recoatable after 16 hours and within 48 hours at 20 °C

3. Herculan PU 100 W / PU 145 topcoat

- The Herculan EX 800 must be fitted with the Herculan PU 100W / PU 145 using a long haired roller.
- Herculan PU 100W / PU 145 is a 2-component material, consisting of a Resin and a Hardener, which must be mixed to each other prior to installation.
- Consumption approximately 0,15 kg/m²
- The application time is about 45 minutes at 20 °C.
- Herculan PU 100W / PU 145 is recoatable and walkable after 16 hours at 20 °C and within 48 hours at 20 °C.

2. INSTALLATION MANUAL

2.1 IMPORTANT

Our recommendations concerning the technical application of the product, whether through oral or written communication or through demonstration, are given to the best of our current knowledge; however, any such instruction shall be without commitment, including where any protective rights of third parties are involved. They do not free you of the obligation to check the products supplied by us for their suitability for the procedures and applications envisaged. The (intended) use and application of the products are beyond our control. They are therefore your personal responsibility. In the event that Herculan proves liable, such liability shall be limited in all cases of damage to a sum not exceeding the actual value of the goods supplied by us and used by you. It goes without saying that we guarantee the good quality of our products, in accordance with the standards set out in our General Terms of Sale and Delivery.

Please find the pre-treatment procedure in chapter 1.1

2.2 REQUIRED INSTALLATION EQUIPMENT

- ✓ Straight and toothed trowel or Swedish Knife
- ✓ Disk grinder or hand held grinder (sanding paper K 120)
- ✓ Vacuum cleaner
- ✓ Radiator brush.
- ✓ Mixer with adjustable RPM and at least a 900 Watt motor.
- ✓ Electrical extension coil.
- ✓ Pincers to open boxes.
- ✓ Measure tape minimum 25 meter.
- ✓ Chalk line or normal building line.
- ✓ 25 mm masking tape (amount depends on line marking fields).
- ✓ 1 roll of plastic sheet.
- ✓ 50 mm oval paint brushes.
- ✓ 7 cm foamed rollers + holder
- ✓ 10 cm polyester fiber rollers + holder
- ✓ 50 cm long haired rollers + (weighted) holder
- ✓ Tape roller.
- ✓ Small mixer.
- ✓ Cleaning cloths
- ✓ Tool cleaner
- ✓ Gloves

As the Herculan Re-topping is a multi-layer system, it is important that after each layer has been completed, the installation technicians thoroughly clean and prepare all items of equipment prior to the application of the next layer of the system.

2.3 INSTALLATION OF HERCULAN EX 800 SCRATCHLAYER

➤ **Material consumption:**

Herculan EX 800: 150 grams/m²

➤ **Mixing ratio components:**

10 kg Herculan EX 800 A+B (7,60 kg A and 2,40 kg B)

➤ **Application method**

STEP 1

Prepare all needed tools before work starts

STEP 2

Ensure that electricity is available and tested.

STEP 3

Prepare a work area with a mixing station and clean this area before doing so.

STEP 4

Place all materials and tools in the working area.

STEP 5

Organize enough material of EX 800.

STEP 6

Open all boxes and keep them well organized for mixing.

STEP 7

First mix the A-component of the EX 800 properly for about 1 minute before adding the B-component. Mix A and B thoroughly for about 2 minutes till the mixture is homogeneous.

STEP 8

Pour a workable amount of the freshly mixed Herculan EX 800 onto the existing floor.

STEP 9

Spread the mixture using the straight trowel.

STEP 10

Mix new material when required, according to step 7, and try to have the new material ready when the old material is almost installed. So keep in mind the time needed for mixing in relation to the installation.

STEP 11

Pour the new material on the floor and install this according to step 9. Repeat this till the whole surface has been covered with EX 800.

2.4 INSTALLATION OF HERCULAN EX 800

➤ **Material consumption:**

Herculan EX 800: approx. 1300 grams/m²

➤ **Mixing ratio components:**

25 kg Herculan EX 800 A+B (19 kg A and 6 kg B)

➤ **Application method**

STEP 1

Prepare all needed tools before work starts

STEP 2

Ensure that electricity is available and tested.

STEP 3

Prepare a work area with a mixing station and clean this area before doing so.

STEP 4

Place all materials and tools in the working area.

STEP 5

Set the height of the Swedish Knife using the adjusting plate for the Swedish Knife.

STEP 6

Organize enough material of EX 800 for the whole area.

STEP 7

Open all boxes and keep them well organized for mixing.

STEP 8

First mix the A-component of the EX 800 properly for about 1 minute before adding the B-component. Mix A and B thoroughly for about 2 minutes till the mixture is homogeneous.

STEP 9

Pour the mixed material onto the surface in a straight line from one side to another.

STEP 10

Spread the mixture using the Swedish Knife or toothed trowel.

When using the Swedish Knife; be sure that the Swedish Knife is used properly. The Swedish Knife should remain at a 90 degree angle to the floor. If the angle alters, the coverage will vary and will always be less than the required 1,3 kg/m².

STEP 11

Mix new material when required, according to step 8, and try to have the new material ready when the old material is almost installed. So keep in mind the time needed for mixing in relation to the installation.

STEP 12

Pour the new material on the floor and make sure that it is poured out on the edge of the already installed material, but on the material and not beside it. Back push this material in the already installed material by approx. 30 cm so no pouring lines will remain visible.

Repeat this till the whole surface has been covered with EX 800.

2.5 INSTALLATION OF HERCULAN PU 100 W / PU 145

➤ **Material consumption:**

Herculan PU 100 W: approx. 150 grams/m²

or

Herculan PU 145: approx. 150 grams/m²

➤ **Mixing ratio components:**

10 kg Herculan PU 100W A+B (8,25 kg A and 1,75 kg B)

or

10 kg Herculan PU 145 A+B (8 kg A and 2 kg B)

➤ **Application method**

STEP 1

Prepare all needed tools before work starts.

STEP 2

Ensure that both water and electricity are available and tested.

STEP 3

Prepare a work area with a mixing station and clean this area before doing so.

STEP 4

Place all materials and tools in the working area.

STEP 5

When necessary in case of contaminations in the EX 800, please sand the floor or the specific sports where the contaminations are present. Afterwards, vacuum the floor thoroughly.

STEP 6

To ensure that the Herculan PU 100W / PU 145 is installed to a good standard, it is important to prepare the rollers used in the application. Any loose or single fibers must be removed from every roller. This is best achieved by applying masking tape on the whole of the rollers and removing this after a few minutes. This will remove all of the loose fibers

STEP 7

(This step only needs to be followed in case two colors will be applied to highlight a certain sport. In case of only 1 color, please proceed with step 8.)

Measure in the requested sports field and mark with 25 mm masking tape. **Be aware that the tape must be placed exactly in the centre of the width of the game lines that are going to be placed!** Make sure the tape sticks very good using the tape roller.

STEP 8

In case of 2 colors: Organize enough material of PU 100W / PU 145 of one color for the area first to be done.

In case of 1 color: Organize enough material of PU 100W / PU 145 for the whole area.

STEP 9

Open all boxes and keep them well organized for mixing.

STEP 10

First mix the A-component of the PU 100W / PU 145 properly for about 1 minute before adding the B-component. Mix A and B thoroughly for about 2 minutes till the mixture is homogeneous.

STEP 11

Pour the mixed material onto the surface in a straight line from one side to another over the width of the floor. Divide the material slightly with the 50 cm roller, by going over the material also over the width of the floor. This ensures that there is not too much material on one place which would lead to problems dividing the material from STEP 12 to get a uniform paint coat thickness.

For the sides, keep a small amount of PU 100W / PU 145 to use this for coating the sides of the area. Use a radiator brush and a 10 cm polyester fibre roller to do this. It is important not to prepare too much of these sides as the coating will start drying and the aim is to ensure that the coating is installed on a “wet to wet” basis to form the best looking finish.

STEP 12

Spread out and install the material parallel to the long sides using the 50 cm long haired roller. After dividing the material with the 50 cm roller, a second technician must roll this section again with a 50 cm roller, keeping an overlap with the previous installed, adjacent material of approximately 5-10 cm. Keep in mind that the lanes remain the same workable length. If the lane is too long, the second installer cannot reach the entire lane.

STEP 13

Mix new material when required, according to step 10, and try to have the new material ready when the old material is almost installed. So keep in mind the time needed for mixing in relation to the installation.

STEP 14

Pour the new material on the floor and make sure that it is poured out somewhere in the middle of the next section to be coated. This way the material is spread as best as possible. Repeat from step 12 with the 50 cm rollers. Keep an overlap of about 15-20 cm with the previous section and make sure to lift the 50 cm roller at the end of a roller section to minimize the visibility of roller marks after installation. Meanwhile, make sure that the sides are coated before reaching that part with the 50 cm rollers. Repeat this step till the whole area is coated and remove the masking tape in case of using 2 color of coating. In case it is impossible to take it away after complete installation, find a way to do this while installing the PU 100W / PU 145. Do not leave the tape since this can cause problems the next day!

STEP 15 (only in case of 2 colors):

Apply the second color only the next day. Do not do this the same day since this is very hard to do and the chance of failure is very high.

Place the 25 mm masking tape on the already coated part in a way that the side of the tape is equal to the side of the coated part. After placing the game line paint, this edge will not be visible anymore if installed correctly. Make sure the tape sticks very good using the tape roller.

Repeat from Step 8 to install the second color.

Take some measurements to avoid people to walk on the floor when it is still wet.

During installation, avoid high temperatures in combination with low relative humidity because drying times will be too short which will have a negative effect on the system, aesthetical and technical. Also avoid a high relative humidity because drying times will be too slow which can have negative effect on the strength of the coating and the adhesion.

It is important to check the consumption rate before and during installation to avoid having not enough material in the end and to avoid that the PU 100W / PU 145 is installed too thickly because then the coating may crack after curing.