Installation Guidelines

Veria Flexicable 20

VERIA

Produkt specifications – Veria Flexicable 20

Veria Flexicable is a 2-conductor underfloor heating cable which can be used for both primary and secondary heating.
Depending on your floor construction you are free to choose the output level you need to fulfil your heating requirements. Please follow the guidelines below.
The area that a certain cable length covers depends on which output you need, and consequently which center-to-center (C-C) distance the cable installation requires.
Note that the heating cable **must** be connected to the power supply by an authorised electrician.

Voltage:	230 V
Lenght:	See label
Effect:	20W/m
Max. temperature:	60 ˚C
Certified by:	Semko

Guidelines for selecting the right output
For concrete floors with carpet, laminate, vinyl, parquet or wooden top flooring max. 100W/m² is recommended
For concrete floors with tiles max. 150W/m² is recommended
For concrete floors with inadequate or poor insulation, covered with tiles, an output up to 200W/m² can be installed.

In the table below you can check which area a given cable lenght covers, with an output of 100W/m², 150W/m² or 200W/m².

Cable lenght	Effect in Watt	Covering area in m²		
		100W/m²	150W/m²	200W/m²
10m	197W	2,0m²	1,3m²	1,0m²
20m	425W	4,0m²	2,7m²	2,0m²
32m	650W	6,4m²	4,3m²	3,2m²
40m	850W	8,0m²	5,3m²	4,0m²
50m	970W	10,0m²	6,7m²	5,0m²
60m	1267W	12,0m²	8,0m²	6,0m²
70m	1415W	14,0m²	9,3m²	7,0m²
80m	1625W	16,0m²	10,7m²	8,0m²
90m	1886W	18,0m²	12,0m²	9,0m²
100m	1974W	20,0m²	13,3m²	10,0m²
125m	2534W	25,0m²	16,7m²	12,5m²

To find the right cable select the nearest rounded down length compared to your net room area (for instance: Net room area = 8,2 m², needed output = 150W/m² – choose 60 m cable)

Calculation of C-C distance: $\frac{\text{Net room area x 100}}{\text{Cable lenght}} = \text{C-C in cm}$

Example: $\frac{8,2 \text{ x } 100}{60} = 13,7\text{cm}$

Connection:

Phase
Neutral
Earth

Note that the yellow cable must not be cut under any circumstances.
The heating cable must never be double-laid, overlap or cross over itself.

Dato:

Floor plan:

VERIA

0,5 M

Installation Guidelines

Congratulations on your new Veria product!

By following the installation guidelines below you are guaranteed a high-performing result and many years of trouble-free use.

1 Let's get started

A. Necessary tools: Hammer, chisel, pencil, tape measure, craft knife, multimeter, insulation tester and this guidance leaflet and plan.

B. Plan: Draw your room on the graph paper (fig. 2). Remember to draw in any fixed furniture/cupboards etc. and the location of your thermostat/power supply. The heating cable should not be installed beneath items fixed to the floor, such as cupboards, bathtubs, toilets etc. Based on your preferred output (W/m²), the net floor area and the cable length, you can now calculate the required C-C distance by using the following formula:

C-C distance (in cm) = Net room area (m²)/Cable length

C. Transfer your plan with its markings onto the floor, so that you know exactly where you will start and finish.

2 Test your Veria Flexicable

Before you lay the heating cable you must check whether the conductor cable works proberly. The resistance value is measured using the multimeter between the blue and black sections (fig. 4a). Check that the value measured matches the value on the label between the heating cable and the power cable. The value displayed must lie within -5% - +10% of the given ohmic value. Make a note of the value measured on the proof of warranty.

Then measure the insulation value with an insulation tester. Measure between the screen (outer connector wiring) and both the black and blue sections (fig. 4b). The measured value must be over 10 MΩ. In positive case tick the field on the proof of warranty.

3 Fitting

3.1 Fitting on concrete floor or existing tile floor (fig. 5)

Start by cutting/drilling a groove in the wall and floor from the connection point. A separate tube for the thermostat's floor sensor and the heating cable power cable is fitted into this groove (fig. 5). Make sure that the groove for the floor sensor stretches at least 50 cm out into the room and that the sensor is placed between two heating cables. The curve of the tube must have a radius of no less than 6 cm (fig. 5).

Before you fit the cable you must prepare the floor surface. Make sure that loose items and sharp edges are removed and that the floor is vacuum-cleaned or washed (fig. 6)

To secure the cable in position while casting lay out a double adhesive tape onto the floor. The adhesive tape should be laid perpendicular to your proposed cable layout spaced evenly every 50 cm (fig. 7)

The cable is now ready to be laid out according to your lay out plan. If extra securing is needed you can fit tape on top of the cables along with the tape lanes (fig. 7)

Continue laying the heating cable until the total floor area is covered. Any excess heating cable must be reconfigured into the floor area by adjusting the C-C distance between the cables. Ensure all heating cables are evenly spaced across the floor area. **Note that the yellow cable under no circumstances can be cut or shortened!**

When all of the cable is installed correctly test the resistance value in the cable again (fig. 4a-4b). Use the same procedure as in section 2 – then make a note of the values on the proof of warranty. Feed the power cable (black) back to the thermostat connection point. Then cover the heating cable with a layer of concrete, floor screed or similar (fig. 9).

To obtain an evenly heat distribution in your floor it is recommended to cover the heating cable with a layer of minimum 50 mm of concrete, floor screed or similar.

Please note that the connection joint between the yellow and black cable must be cast into the concrete or screed. Take care not to step o nor damage the cable when laying out the heating cable and casting the floor.

3.2 Fitting on metal mesh reinforcement (fig. 8)

Start by cutting a groove in the wall – from the connection point to the floor. A separate tube for the thermostat's floor sensor and the heating cable power cable is fitted into this groove. The curve of the tube must have a radius of no less than 6 cm (fig. 5). Make sure that the flexible tube for the floor sensor stretches at least 50 cm out into the room and that the sensor is placed between two heating cables. Fix the tube for the thermostat's floor sensor to the metal mesh reinforcement.

The cable is now ready to be installed according to your lay out plan. Lay out the cable with the calculated C-C distance. The cable should be fixed to the metal mesh reinforcement with cable ties for every 20-30 cm. The cable ties should be tightened so that they keep the cable in position, but without deforming the cable.

Continue laying the heating cable until the total floor area is covered. Any excess heating cable must be reconfigured into the floor area by adjusting the C-C distance between the cables. Ensure all heating cables are evenly spaced across the floor area. **Note that the yellow cable under no circumstances can be cut or shortened!**

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Please note that the connection joint between the yellow and black cable must be cast into the concrete or screed. Take care not to step o nor damage the cable when laying out the heating cable and casting the floor.

4 Final tests

After casting, measure the resistance value in the cable again (fig. 4a-4b). Use the same procedure as in section 2 – then make a note of the values on the proof of warranty. It is recommended that the concrete, self-levelling screed etc. be left to harden in accordance with the manufacturer's instructions before the top flooring of tiles, wood, laminate etc. is laid (Fig 10)

5 Finishing

After the work has been completed the floor must harden completely before the floor heating and thermostat are connected. This process usually takes 8-10 days, but you should refer to the filler manufacturer's guidelines. To connect the thermostat, please refer to the thermostat installation guidelines. **The Veria Flexicable must be supplied through a residual current device (RCD) having a rated residual operating current not exceeding 30 mA.**

Veria Flexicable can be used with the following thermostats:

Veria Control B35/45	Veria Control T45	Veria Control W35/45

Veria would like to wish you all the best with your new heated floors!

12-year warranty for Veria Quickmat and Veria Flexicable

Veria's products have been developed for many years of trouble-free use. Assuming that they are installed correctly – according to the installation guidelines – we therefore provide a 12-year warranty on Veria Quickmat and Veria Flexicable. A 2-year warranty is provided on other Veria products. The warranty covers products that appear to be defective due to manufacturing, construction or material faults.

However, the warranty is void if:

- The product has not been installed according to the installation guidelines
- It has not been connected by an authorised electrician
- The fault is caused by inappropriate/poor floor construction

The warranty is also conditional upon the accompanying proof of warranty having been filled in correctly. The proof of warranty must be retained by the owner and must be produced in the event of a claim.

In the unlikely event that you have to make use of the warranty, we will repair the product or supply a new replacement product free of charge. The warranty does not cover any indirect or additional costs such as costs relating to the localisation of the fault, removing the product, repairing the floor etc.

In the event of a warranty claim the product will be sent to Veria – as agreed in advance - with a tracking label attached, stating the nature of the fault. If our investigation shows that the product is not faulty it will be returned. If we find any faults Veria will return the repaired product or supply a new Veria product and will take away the parts that have been removed or the faulty Veria product. No additional claims may be made against Veria under the warranty.

Fig. 1

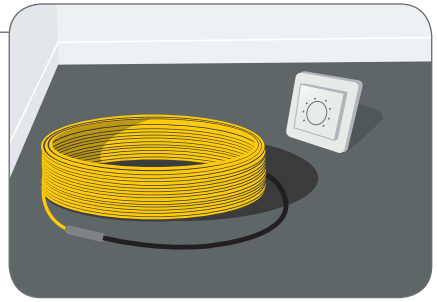


Fig. 2

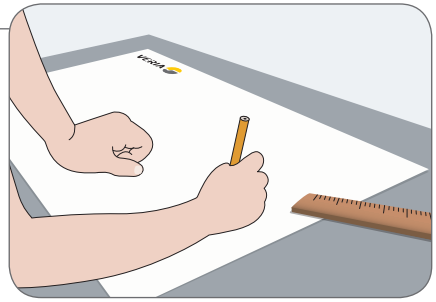


Fig. 3

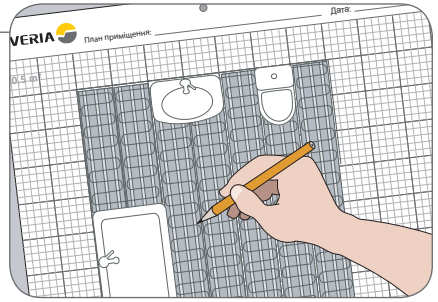


Fig. 4[a]

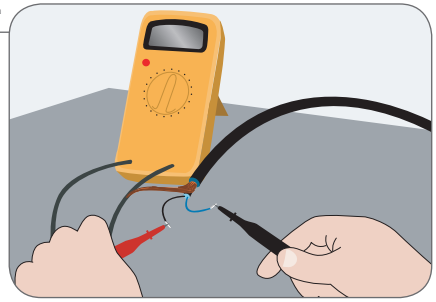


Fig. 4[b]

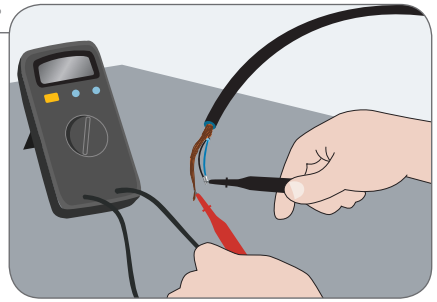


Fig. 5

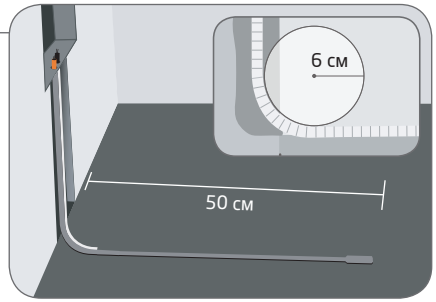


Fig. 6

Fig. 7

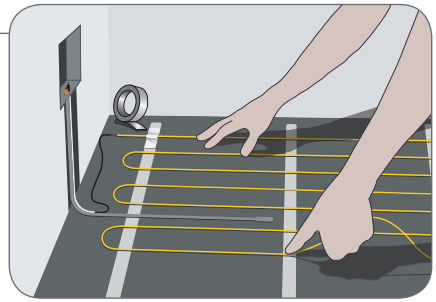


Fig. 8

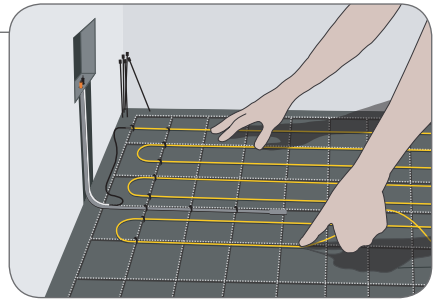


Fig. 9

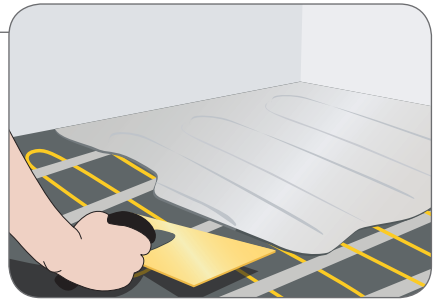
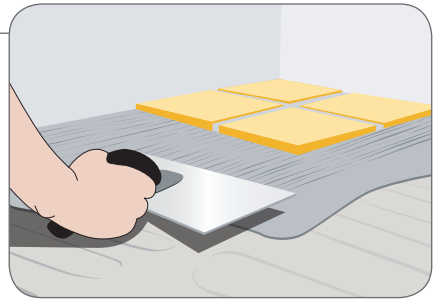


Fig.10



Proof of Warranty

A 12-year warranty is hereby provided for

Name: _____ Telephone: _____

Address: _____ Postcode & town: _____

Please note!

The VERIA warranty is only valid if the following details have been filled in correctly. See the conditions below. The proof of warranty must be retained by the purchaser

Heating cable laid by _____ Date: _____

Connected by _____ Date: _____

Cable length:

Item number (see label):

Veria Flexicable		Result
Insulation resistance	Before embedding	Over 10 MΩ ☐
	After floor laid	Over 10 MΩ ☐
Resistance value of heating cable	Before laying	= Ω
	Before embedding	= Ω
	After embedding	= Ω

Installers stamp:

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