DUPONT™ PLANTEX® PLATINIUM

Thermal Welding Installation Guide

To make a proper joint between two rolls or strips of DuPont™ Plantex®, we recommend thermal welding. It is also possible to use Plantex® Performance Tape (butyl base), but this technique is more sensitive to climatic variations (temperature, humidity, etc.) and to installation errors.

Different thermal welding machines exist on the market having different technical characteristics. The temperature, welding speed and pressure indications may vary depending on the brand and type of machine. Therefore, performing tests on site is recommended.

As an example, here is an overview of the conditions of use of the Weldy TEX2 machine.

Technical data

Weight	3,5 kg
Welding speed up to	7.5 m/min
Dimensions (L x P x H)	228 x 228 x 170 mm
Max. temperature	480 ° C

Miniwelder TEX2
by WELDY

Preparation

The power supply of the machine requires an electromechanical generator and extension cables. Make sure that the cables are long enough to carry out thermal welding over the entire distance.

Required power	Normal socket, 230V - 50/60 Hz
Energy consumption	800 Watt / 3,5 Ampere

To facilitate the welding of polypropylene Plantex® Platinium or Plantex® Platinium Solar:

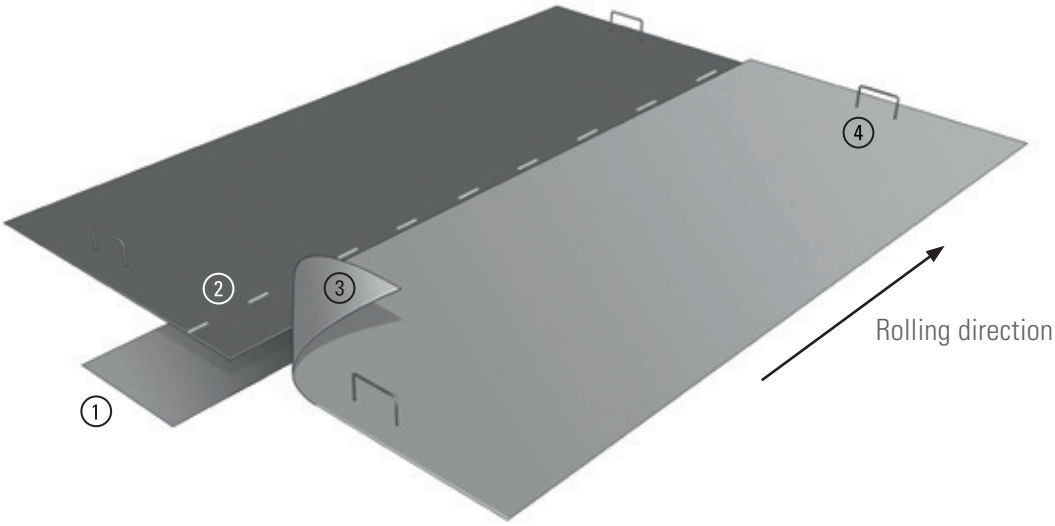
1- A 30 to 50 cm wide strip of fabric, used as a support layer for the welding machine, is recommended. It is placed underneath the two rolls to be welded together.

2- Once this support strip is in place, the left roll needs to be at the bottom, the right roll on top. Now, with a ruler and an appropriate marker pen, mark out guide lines at 10cm distance inwards from the edge along the rolled-out section, over its entire length.

3- Then, lay the upper layer of Plantex® on the right-hand side (shown in light grey on the diagram) and glide it over the edge of the left-hand layer to meet the marks that you have made, thus creating an overlap of 10cm across the lower layer. Always work right over left, with the edge of the upper always above the left-hand layer, at 10cm across from the edge.

4- Fix the 2 strips to be welded with 2 staples or nails in order to put the product under tension and to allow a smooth passage of the machine.

After the welding, remove the 2 staples / nails and cut the perforated parts of the rolls.



Welding: installation of WELDY machine

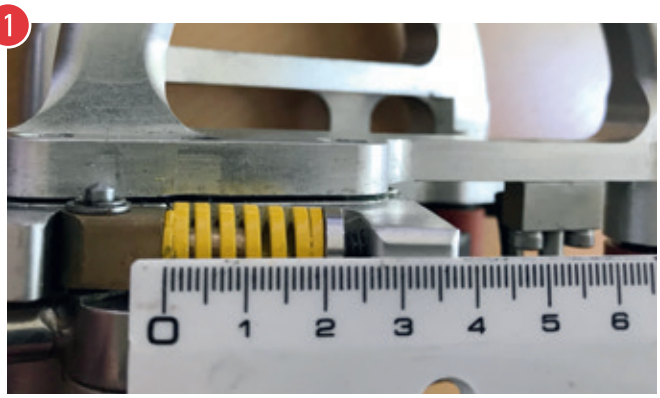
Once the layers to be welded are in position, set the temperature, speed and pressure of the machine according to the following tables:

	Plantex® Platinium	Plantex® Platinium Solar
Temperature	340 °C	305 °C
Welding speed	3 m/min	3 m/min
Pressure	23 mm (3 turns)	23 mm (3 turns)

Step 1

The welding speed and the temperature can be adjusted using the buttons on the machine.
The pressure should be adjusted with the hex key included.
We recommend adjusting the compression of the yellow spring to 20 mm. Then switch on the machine by pressing the heat ON / OFF button. Preheating the device takes 3 to 4 minutes. The machine is ready when the LED stops flashing and stays on permanently.

1



Step 2

Fold the right overlap back away from the edge of the left layer, so you can tuck the lower left-side layer into the machine first from the left.

2

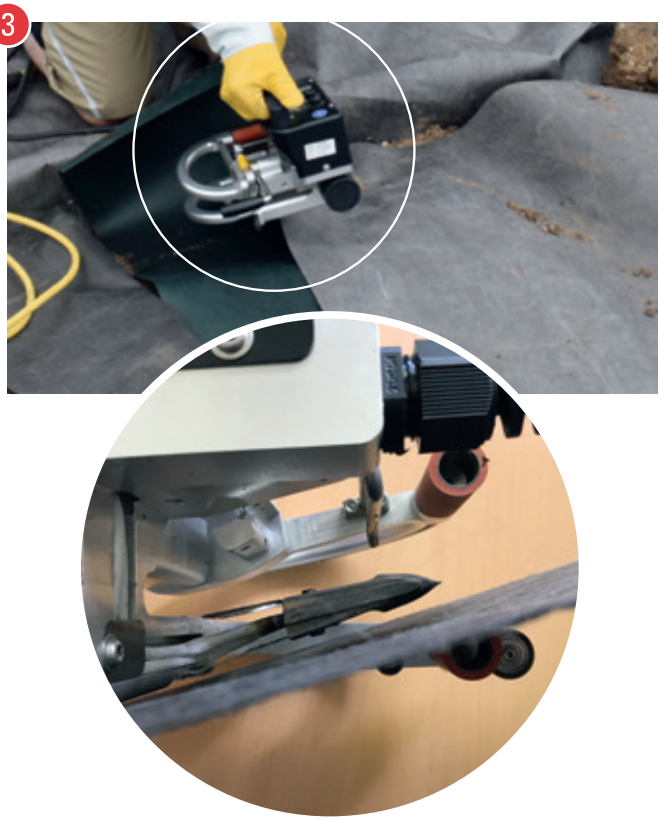
Step 3

Now it sits between the welding wedge and the two tractor rollers (orange rollers) below the handle. Then position the WELDY machine in the direction of the starting point. Then, take the right-sided edge of the overlap from the upper layer and insert this into the guide bracket. To start, press the traction START / STOP button and immediately lower the tension lever. The machine starts according to the speed set. The machine self-tracts along the overlap. We recommend staying close to the machine in order to correct its speed and trajectory in case of deviation due to any irregularities in the ground.

Important: The optimum position during thermal welding is approximately 1 cm towards the limit of the guide bracket. During the thermo-welding operation, the upper layer must always be between the limit of the guide bracket and the upper pressure roller.
At the end of the welding process, let the machine finish at the very the end of the overlap, then lift it up and ride up the tension lever in order to disengage the heating element.
Quickly check the weld to make sure the seal is completely all the way through.

Attention: Once the thermal welding is complete, it is important to rest the machine on a wooden or metal support. Do not place the machine back onto the welded layer.

3



Important

Precautions for use and installation:

- Do not weld when Plantex® Platinum is wet
- Use personal protective equipment when welding (gloves, goggles, safety shoes) and others, depending on the environment and circumstances
- Always check the quality of the weld throughout its length, to ensure a continuous and smooth weld

Visit www.plantexpro.dupont.com
for installation guides for Plantex® Platinium and Plantex® Platinium Solar.

The product information available here corresponds to our current knowledge and experience on the subject. It is offered solely as information and to provide possible suggestions for your own experimentation to determine for yourself the suitability of our products for your particular purposes and applications. This information may be subject to revision as new knowledge and experience becomes available. Since we cannot anticipate all variations in actual end-use conditions DuPont de Nemours has no obligation relative to results and assumes no liability in connection with any use of this information. Nothing in this publication is to be considered as a licence to operate under or a recommendation to infringe any patent right.

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