



Heat Seal Machine Process

Our experience has shown the Heat Seal Process to be an effective solution when adding RFID chips to old mats. In our testing the chips have remained on the mats for over 75 wash cycles.

The type, setup and effectiveness of heat seal equipment can vary widely depending on the available air pressure and the heat produced by the individual machine. Because of this, we recommend that you thoroughly check the equipment to be used and then make some tests using the information below as a guide. It is also recommended you carry out wash test to evaluate the results before undertaking a large project.

If you have any questions please contact Kleen-Tex for further advice.

Required Materials:

- RFID Chips - Customer to choose his own supplier for this item
- Uncured Rubber 35 mm wide - Available to purchase from Kleen-Tex
- Label to identify RFID chip placement - these are optional and are available from Kleen-Tex

Required Equipment:

- Heat Seal Machine
- Grinder with wire brush or grinding stone attached
- PTFE/Teflon sheet

Instructions for Adding RFID Chips:

- Clean off the area where you wish to place the RFID chip, so you have a rough rubber surface. If the mat is kleeated, be sure to remove all kleeats. Even with smooth backed mats it is also necessary to buff the surface to improve the bond with the new rubber. Be careful not to be too aggressive during grinding as you may grind through the rubber backing, damaging the mat.
- Set the temperature and pressure on the heat seal machine - 80 psi or 5.5 bar is desirable and 180 °C degrees.
- Place the mat in the heat seal machine with the buffed rubber area in the middle of the hot plate.
- Place a piece of uncured rubber on the area that has been buffed.
- Place the RFID chip on top of the rubber.
- Add a second piece of rubber and if desired an identifying label/coloured patch.
- Cover the entire repair area with a piece of PTFE/Teflon sheet.
- Close the heat seal machine and allow the label and the rubber to cook for 5 minutes.
- When the cook cycle is completed, allow the mat to cool before handling.