

# Millar Mikro-Tip® Catheters Electrostatic Discharge (ESD) Guidelines

**WARNING:** Electrostatic discharge (ESD) may damage functionality of the catheter. Please review the following ESD guidelines prior to handling the catheter.

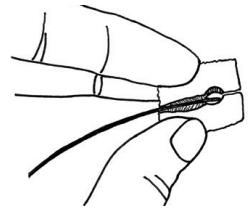
Millar catheters are ESD sensitive devices and proper care and handling protocols must be taken to ensure expected longevity of the product. Follow these recommendations to safeguard against ESD anytime the catheter is handled.

The guidelines below may not cover all potential ESD risk for every lab setup. Individual laboratory setup should be evaluated for potential ESD risk.



## PROPER HANDLING OF FOAM DOME

- When removing the catheter tip from the foam dome, never slide or pull the tip out of the foam dome. This will cause static and friction on the distal end of the catheter.
- To remove the catheter from the foam dome, open at the slit and lift the catheter up.
- To place the catheter back into the foam dome, open at the slit and place the distal tip in the circle opening.



## HOW TO AVOID ESD

- Maintain relative humidity at levels over 30 percent RH but not to exceed 60 percent
- Put grounding protocols in place, such as use of ESD flooring or mats, conductive footwear, leg, or wrist straps
- Evaluate the conductivity of the work surface. Consider placing a table mat on the surface if the catheter may come in contact with a metal table.
- Establish a grounding plan for workstation connection points. This can be done via any grounded electrical outlet.
- Grip catheter 5-10mm away from the sensor/electrode

## RECOMMENDED ESD EQUIPMENT

- Wrist strap and band (test connection daily) connection points
- ESD grounding mat (table and floor)
- Wrist strap tester (Ex. DESCO Touch Tester)
- Miscellaneous items: Antistatic Paper, ESD Tape, Antistatic Bags

## HOW TO USE WRIST BANDS AND ESD MATS WITH DESCO TOUCH TESTER

### Steps:

1. Plug ground cord with wrist band into a designated touch tester
2. Attach the wrist band on the wrist or ankle
3. Ensure metal part of clasp on wrist band is in contact with the skin
4. Check the Touch Tester to be certain the power indicator light is on. When the Touch Tester's power supply is plugged into a grounded outlet the red LED will be on, indicating that the unit is powered.
5. Touch the metallic surface of the test fixture, "TEST GOOD" green light indicates you may proceed with handling the catheter. If the green light does not light up, check the connection wrist band to the test, readjust the wrist strap and test again.
6. Connect the wrist band and ground cord to the antistatic/ESD pad

