

# Ultrathin-Wall Heat Shrink Tubing Ideal Solution for Microablation Device



## CUSTOMER SITUATION

A small start-up company had an idea for a catheter-based device that would offer the first interventional approach to treating mitral valve regurgitation, a condition currently only treated with open surgery. The device would cut through cardiac tissue with minimal force using RF energy.



## OUTCOME

The customer was able to demonstrate successful use in preclinical testing, and the device is currently in human use for CE mark trials.

*There were two main design challenges:*

- *The device would cut by delivering RF energy; however, traditional insulation layers were too bulky or prone to ripping, and dielectric coatings were subject to gaps that could cause injury to surrounding heart tissue.*
- *To reach the treatment area, the catheter would have to be small enough to pass through a 0.018" opening (smallest microcatheters used are 0.04" in diameter).*



## NORDSON SOLUTION

The customer chose Nordson MEDICAL because its exclusive PET heat shrink tubing offered a solution to the design challenges:

- Its high strength and insulative properties made it an ideal wire covering for this RF application
- Its ultrathin-walls would not add significant bulk to ensure the catheter could pass through the small opening.