

TECHNICAL UPDATE - TU-6016

SUBJECT: Pressure Rating of 210 Series Heated Hose Cores

Questions arise concerning the pressure rating of the braided teflon cores used in Series 210 Heated Hose products.

To answer these questions, Furon Unitherm Engineering set up a test chamber inside our hose pressure test unit. The test chamber allowed us to control the ambient temperature around the hose core as it was being pressure tested.

Several samples of braided PFA fluoropolymer core were tested at temperatures up to 400°F (204°C).

The core size tested was 3/8" OD x .062" Wall PFA tube with a tinned copper braid overall. Random samples were taken from production inventory. This size was chosen as it is the most common core supplied.

Testing showed that the tubing held pressures greater than 300 PSIG at 400°F (204°C) ambients, as listed in the Unitherm catalog.

We found that none of the burst failures occurred in the braided section. All occurred where the braid was removed to enter the compression fitting. It should be noted that the compression fitting was at room temperature, not the elevated test temperature.