

Excerpts from NIST Report on Residential Kitchen Fire Suppression Systems

StoveTop FireStop® Results

What follows are actual slides from a NIST report on residential kitchen fire suppression systems. (“Residential Kitchen Fire Suppression Research Needs: Workshop Proceedings,” by Daniel Madrzykowski, et al, of the National Institute of Standards and Technology, February, 2007.)

Below (Figure 1) are the results of the StoveTop FireStop® test as shown in that report. This fire test consisted of 4” of cooking oil (over 20 cups of oil) in 10” diameter cooking pot, which, as discussed in the letter above, is significantly more than what our product is designed for, and significantly more than typical stovetop frying pan cooking methods. As you can see below, StoveTop FireStop put out the fire completely and the only cleanup required was to wash away oil that splashed on the walls (again, as a result of the extreme depth of oil in this test), and to vacuum up the fire-suppressing powder.

Dry Chemical Results

- Fire extinguished
- Flames need to impinge on device to activate
- Pilot out
- Area protected limited to stove top




Figure 1 - NIST excerpt on the results of testing the StoveTop FireStop®. While deep-fat frying is not an approved application, our product did put out the fire.

The 2007 NIST report also illustrated the effectiveness of sprinkler systems in putting out kitchen fires. As expected, the sprinkler systems were effective in putting out kitchen fires, although some fire and smoke damage was incurred in the walls and cabinets, with some water damage also being present. With the use of a supplemental fire suppression product like StoveTop FireStop in addition to fire sprinklers, the fire can generally be put out more quickly than with sprinkler systems alone, thus avoiding the potential for more fire, smoke residue, or water damage.