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Flexible Technologies, Inc.  
Mr. James Lollis  
528 Carwellyn Road  
Abbeville, SC 29620

Subject: Standard UL 2043, "Fire Test for Heat and Visible Smoke  
Release for Discrete Products and Their Accessories  
Installed in Air-Handling Spaces"

Dear Mr. Lollis:

In the Standard UL 181, "Factory-Made Air Ducts and Air Connectors" the Listed systems receive a Class 1 rating when the flame spread index is not over 25 without evidence of continued progressive combustion and the smoke developed index is not over 50, based on the Standard UL 723, "Test for Surface Burning Characteristics of Building Materials" (NFPA 255, ASTM E84). These requirements are consistent for all pipe and duct insulation materials as well as materials used for the fabrication of air duct and air connector systems used in air handling plenum spaces.

Under NFPA 90A, "Installation of Air-Conditioning and Ventilating Systems," all materials exposed to the airflow shall have a maximum smoke developed index of 50. **One exception** would allow a maximum peak optical density of 0.5, a maximum average optical density of 0.15 and a maximum peak heat release rate of 100 or less **when tested in accordance to UL 2043, "Discrete Products Installed in Air-Handling Spaces."**

**The new product category "Discrete Products Installed in Air-Handling Spaces - Plenums" based on UL 2043, was developed for products intended for use in the air handling spaces but not suited for conducting the UL 723 (NFPA 255, ASTM E84) tests** due to the random and/or discontinuous spacing and/or size of these products.

**The FlexFlow Elbow is distributed by Flexible Technologies Inc. and has met the test requirements outlined in UL 2043.**

If you have any further question, feel free to contact the undersigned at 847-664-2349.

Very truly yours

MARTIN K. ROWAN  
Senior Project Engineer  
Fire Protection Division