



January 19, 2017

RE: Hilti CS-SL SA Smoke and Acoustic Sleeve in Air Handling Spaces (Plenums)

To whom it may concern:

Hilti CS-SL SA Smoke and Acoustic Sleeve, with smoke gaskets have been tested to UL Standard UL 2043, "Fire Test for Heat and Visible Smoke Release for Discreet Products and Their Accessories Installed in Air Handling Spaces". This standard is the method used by UL to determine the rate of heat and smoke release of products which are non-continuous in nature and are intended to be installed in air handling spaces (or plenums), such as above suspended ceilings.

Results

The peak heat release rate of the sample, peak normalized optical density, average normalized optical density, peak smoke heat release, and total smoke released are the functions in which each sample is measured. A product passes this 10-minute stress test if:

- Heat release rated does not exceed 100 kilowatts
- Peak optical density of emitted smoke is less than 0.5
- Average optical density of emitted smoke is less than 0.15

The Hilti CS-SL SA 4" Smoke and Acoustic Sleeve with smoke gaskets was tested and meets the requirements of the standard as shown below:

Sample - Test Ref.	Peak Heat Release Rate (kW)	Peak Normalized Optical Density	Average Normalized Optical Density	Peak Smoke Release Rate (m ² /s)	Total Smoke Released (m ²)
CS-SL SA 4"	15	0.17	0.02	0.07	9.6

Please contact me if you have any questions.

Best regards,

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