

## **K-Flex USA UL GREENGUARD Certification and Indoor Air Quality (IAQ)**

Due to concerns over indoor air quality, a number of manufacturers of insulation have had their products tested and certified by Underwriters Laboratories for Greenguard compliance.

The Greenguard program was developed by the Greenguard Environmental Institute (GEI), a listing agency that was closely affiliated with Air Quality Sciences (AQS), a third party testing laboratory that specialized in testing construction materials and building furnishings for formaldehyde and VOC content, as well as mold resistance. GEI maintained a *certification* program for VOC content and a *listing* service for mold resistance. Underwriters Laboratories acquired this business and incorporated it into UL Environment in 2011.

Certification testing consists of VOC emissions tests conducted in accordance with ASTM D5116 for small scale tests and ASTM D6670 for large scale tests. Products are evaluated based on acceptance criteria established by GEI, which are similar to State of Washington, EPA and OSHA (for formaldehyde content). Testing is conducted at 72°F. Products that meet these criteria can be called “low emitting” by the manufacturer and are eligible for certification. In states where VOC and formaldehyde content are regulated or in LEED Building Projects, GREENGUARD certification is accepted as proof of compliance.

K-Flex<sup>®</sup> Insul-Tube<sup>®</sup> and Insul-Sheet, K-Flex<sup>®</sup> Clad WT, K-Fit<sup>®</sup> and K-Flex Duct<sup>®</sup> Liner Gray are GREENGUARD GOLD Certified by UL for VOC content (formerly referred to as the GREENGUARD “Children and Schools” criteria), the most stringent requirements.

Mold resistance testing is per ASTM D6329/UL 2824. K-Flex<sup>®</sup> Insul-Tube<sup>®</sup> and Insul-Sheet, and K-Flex Duct<sup>®</sup> Liner Gray are UL Validated for mold resistance.

K-Flex USA feels that an ideal IAQ friendly product should not absorb moisture, should not contribute to corrosion, and should not support or facilitate growth of mold or bacteria over long-term use. We would also suggest (and many specifiers agree) that duct lining materials should not contain any man-made mineral fibers. In addition to being UL GREENGUARD GOLD certified for low VOCs and UL Validated for mold resistance, K-Flex USA elastomeric closed cell foam insulation products resist moisture absorption, do not contribute to corrosion and do not contain any mineral fibers.

K-Flex elastomeric pipe insulation, duct covering and duct lining materials are truly IAQ friendly and provide a level of performance that far exceeds the requirements of the UL GREENGUARD certification and UL Validation programs.

