The National Fire Protection Association And K-Flex USA Insulation Products

The National Fire Protection Association (NFPA) is a non-profit organization composed primarily of individuals dedicated to fire safety, i.e. fire marshals, code inspectors, etc. The organization sets standards and disseminates information relating to all aspects of fire safety. They have issued several test methods and standards that pertain to insulation products manufactured by K-Flex USA.

NFPA 255 (Building Materials, Test of Surface Burning Characteristics) was identical to ASTM E84. The last version of NFPA 255 was published in 2006 and the standard was withdrawn on 2009. It is occasionally still referenced in specifications but would no longer be current or consistent with ASTM E84 or UL 723.

NFPA 90A (Standard for the Installation of Air Condition and Ventilating Systems) deals with the use of materials associated with ducts, plenums and other air handling units, including insulation lining or covering ducts. Section 2-3.3 (Supplementary Materials for Air Distribution Systems) of the specification relates to insulation materials.

Section: 2-3.3.1 states "Supplementary materials such as duct coverings, duct linings, vapor barrier facings, adhesives, fasteners, tapes, and core materials added to air ducts, plenums, panels, and duct silencers used in duct systems shall have a flame spread rating not over 25 without evidence of continued progressive combustion and a smoke developed rating no higher than 50."

Section: 2-3.3.2 states "Air duct, panel, and plenum coverings and liners shall not flame, glow, smolder, or smoke when tested in accordance with a similar test for pipe covering, ASTM C411: Standard Test Method for Hot Surface Performance of High Temperature Thermal Insulation, at the temperature to which they are exposed in service. In no case shall the test temperature be below 250°F (121°C)."

In later sections the standard goes into more detail regarding materials specifically used as pipe insulation and coverings (Section 2-3.3.6) where reference is made to Sections 2-3.3.1 and 2-3.3.2.

Based on Sections 2-3.3.1 and 2-3.3.2 K-Flex USA's NBR/PVC based Elastomeric Insulation Products meet the requirements of NFPA 90A at 2" thickness and below. K-Flex PE polyethylene insulation meets these requirements for 1" thickness and below.

NFPA 90B

K-Flex USA's NBR/PVC Elastomeric Insulation Products meet the requirements of NFPA 90B which requires a 25/50 flame spread/smoke development rating when tested according to ASTM E84 at 2" thickness and below. K-Flex PE polyethylene insulation meets these requirements for 1" thickness and below.