
	<b>Hose Insulation Specification</b>				
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## 1 Scope

This engineering specification defines requirements of the hose insulation products, used by Burgaflex BV. This engineering specification is a reference document and does not relieve the supplier of the responsibility to carry out other tests and inspections in order to guard the quality of the product.

## 2 Applicable

This Specification is applicable on all hose assemblies and tubing produced by Burgaflex BV.

## 3 Responsibility

The Quality manager is responsible for the maintenance and updating of this document.

## 4 Characteristics

KKS-wt-xx insulation tube (acc. 6 or 9mm WT - Aeroflex)

Pipe diameters 6 - 165 mm

Insulation thickness 6 (no KKS SAPT), 9, 13, 19, 25, 32, 38 and 50 mm

Length 2 meter

### Options

Available as a closed hose (KKS) or as an open hose with self-sealing tape (KKS SAPT)

Approved for ECE-R118 Annex 6-7-8.

<https://youtu.be/KnNbcOtAIQM>

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Checked: Quality Manager	
Approved: Managing Director	

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## AEROFLEX® KKS



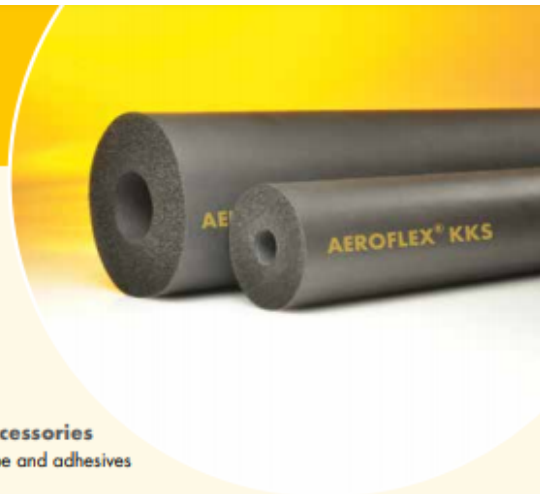
This EPDM based highly flexible closed cell insulation features outstanding material characteristics such as high weather and UV resistance, excellent temperature resistance and an absolutely low rate of thermal loss ( $\lambda_{40} = 0,040 \text{ W/mK}$ ).

### Insulation material

- Light-weight, flexible closed cell insulation made of EPDM
- Non-corrosiveness to copper and corrugated stainless steel pipes (according to DIN 1988, Part 7)
- Temperature resistance from  $-50^{\circ}\text{C}^*$  to  $150^{\circ}\text{C}$   
\*AEROFLEX® remains flexible to  $-50^{\circ}\text{C}$ , but can be used easily at temperatures to  $-200^{\circ}\text{C}$ .

### Accessories

Tape and adhesives



AEROFLEX® KKS is the best choice for the insulation of refrigeration and air conditioning piping systems.

## AEROFLEX® KKS

## Technical data

Characteristics	Values (EN)	According to	Values (USA)	According to	Testing methods (EN)	Testing methods (USA)
Minimum service temperature	$-50^{\circ}\text{C}$		$-57^{\circ}\text{C}$		EN14706, EN14707	ASTM C411
Recommended max. temperature for permanent thermal stability	$+150^{\circ}\text{C}$		$+125^{\circ}\text{C}$			ASTM C411
Recommended temperature for short-term thermal stability	$+175^{\circ}\text{C}$					
Maximum service temperature ST (+) insulation	$+180^{\circ}\text{C}$				EN14706, EN14707	
Recommended max. temperature for permanent thermal stability SA/SAPT	$+85^{\circ}\text{C}$					
Thermal conductivity at $0^{\circ}\text{C}$	$0,036 \text{ W/mK}$	EN14304, EN13467	$\leq 0,034 \text{ W/mK}$	ASTM C534	EN12667, EN ISO 8497	ASTM C177, ASTM C518
Thermal conductivity at $+10^{\circ}\text{C}$	$0,037 \text{ W/mK}$	EN14304, EN13467	$\leq 0,035 \text{ W/mK}$	ASTM C534	EN12667, EN ISO 8497	ASTM C177, ASTM C518
Thermal conductivity at $+24^{\circ}\text{C}$			$\leq 0,037 \text{ W/mK}$	ASTM C534		ASTM C177, ASTM C518
Thermal conductivity at $+40^{\circ}\text{C}$ tube (sheets)	$0,040 \text{ W/mK}$ ( $0,042 \text{ W/mK}$ )	EN14304, EN13467	$\leq 0,039 \text{ W/mK}$	ASTM C534	EN12667, EN ISO 8497	ASTM C177, ASTM C518
Water vapour diffusion resistance at $23^{\circ}\text{C}$	$\mu > 3000$				EN12086, EN13469	
Water vapor permeability, max.			$< 0.1 \text{ perm-inch}$	ASTM C534		ASTM E96
Water absorption (weight%)	5					ASTM D 1056
Water absorption (volume%)			$< 0.2$	ASTM C534		
Reaction to fire of tubes	D <sub>s</sub> 2,d0	EN14304	Class A		EN13501-1, ISO 11925-2	ASTM E84
Reaction to fire of tubes SAPT	D <sub>s</sub> 2,d0	EN14304			EN13501-1, ISO 11925-2	
Reaction to fire of sheets	D <sub>s</sub> 3,d0	EN14304	Class A		EN13501-1, ISO 11925-2	ASTM E84
Reaction to fire of sheets SA	D <sub>s</sub> 3,d0	EN14304			EN13501-1, ISO 11925-2	
Density	$40-80 \text{ kg/m}^3$		$40-80 \text{ kg/m}^3$		EN13470	ASTM D 1667
Heat stability (% linear shrinkage) ( $\Theta 104^{\circ}\text{C}$ , 7 days)			$< 7\%$	ASTM C534		ASTM C534
Dimensions and tolerances	conform EN14304, tabel 1		conform ASTM C534, tabel 2		EN822, EN823, EN13467	ASTM C534