

BASALT SLEEVES



KNITTED BASALT SLEEVE

This extreme temperature Basalt Knitted Sleeve provides excellent thermal protection and will withstand continuous exposure to temperatures of up to 1400°F (760°C). Typical applications include automotive, heavy-duty truck, and bus exhaust tubes and pipes and high temperature industrial applications to protect hoses and cables. When installed on vehicle exhaust tubes and pipes, our Basalt Sleeve facilitates an increase in the efficiency of a vehicle's emission control system through the retention of high temperatures as gases flow through the exhaust system. Moreover, the Sleeves reduce radiation of heat to adjacent components to preserve the integrity of these components.

The durable, knitted, and lightweight design is very flexible, which enables ease of assembly over tubes and pipes with bends, flanges, and a wide range of geometries. The dense single wall construction provides optimal coverage and prevents snagging or tearing during assembly.

MATERIALS

Basalt

AVAILABLE CONSTRUCTION OPTIONS

Knitted

MAXIMUM CONTINUOUS TEMPERATURE

1400°F (760°C)

SIZE RANGE

1" (25.4mm) - 5" (127mm)

AVAILABLE OPTIONS

Special bulk packaging to maximize productivity and minimize waste
Custom cut lengths

TYPICAL INDUSTRIES

Automotive, Working Vehicle, Construction Equipment, OEM, Generators, Engine Exhaust, Locomotive

DAVLYN BASALT SLEEVE		
Nominal I.D.		DAVLYN Part Number
in.	mm	
1	25.4	M-E21630-16-xx
1-1/2	38	M-E21630-24-xx
2	51	M-E21630-32-xx
2-1/2	64	M-E21630-40-xx
3	76	M-E21630-48-xx
3-1/2	89	M-E21630-56-xx
4	102	M-E21630-64-xx
4-1/2	114	M-E21630-72-xx
5	127	M-E21630-80-xx



Basalt Technical Characteristics

PROPERTIES	SI UNITS	SPECIFICATION
<i>Thermal</i>		
Maximum application temperature	(°C)	982°
Sustained operating temperature	(°C)	750°
Minimum operating temperature	(°C)	-260°
Thermal conductivity	(W/m K)	0.031-0.038
Melting temperature	(°C)	1450°
Virtification conductivity	(°C)	1050°
Glow loss	(%)	1.91
Thermal expansion coefficient	(ppm/ °C)	8.0°
<i>Physical/Mechanical</i>		
Density	(g/cm3)	2.75
Filament diameter	(microns)	9-23
Tensile strength	(M Pa)	4840
Compression	(psi)	550,000
Elastic modulus	(G Pa)	89
Linear expansion coefficient	(x10 /K)	5.5
Elongation at break	(%)	3.15
Absorption of humidity (65%RAH)	(%)	<0.1
Stability at tension (20 C°)	(%)	100
Stability at tension (200 C°)	(%)	95
Stability at tension (400 C°)	(%)	82
<i>Acoustics</i>		
Sound absorption coefficient	(%)	0.9-0.99
<i>Electrical</i>		
Specific volume resistance	(ohm.m)	1*10x12
Loss angle tangent frequency	(1 MHz)	0.005
Relative dielectric permeability	(1 MHz)	2.2
<i>Chemical Resistance</i>		
Percentage weight loss after 3 hrs boiling in:		
H2O	(%)	0.2
2n NaOH (Sodium Hydroxide)	(%)	5.0
2n HCl (Hydrochloric acid)	(%)	2.2