

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 (750°C). Typical applications include automotive, heavy-duty truck and bus exhaust tubes and pipes, and high temperature industrial applications. 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 (750°C)

SIZE RANGE

1" (25mm) - 6" (152mm)

AVAILABLE OPTIONS

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

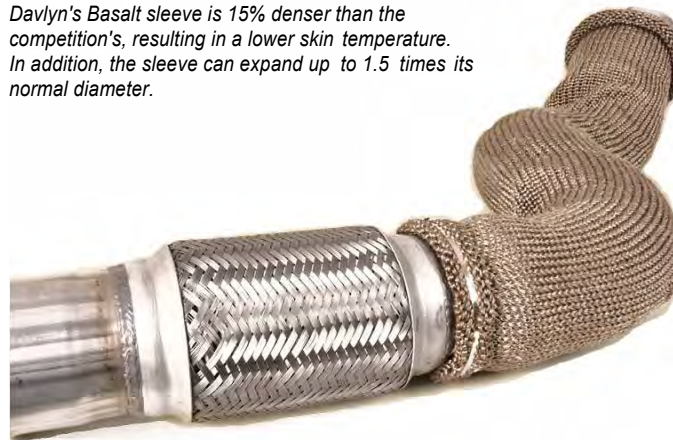
TYPICAL INDUSTRIES

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

DAVLYN BASALT SLEEVE		
Nominal I.D.		DAVLYN Part Number
in.	mm	
1	25	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
6	152	M-E21630-96-xx



Davlyn's Basalt sleeve is 15% denser than the competition's, resulting in a lower skin temperature. In addition, the sleeve can expand up to 1.5 times its normal diameter.



BASALT ENGINEERING DATA

Basalt Sleeve Performance Testing

Test	Result	Test Specification
Thermal Testing		
700°C Soak test	Passed	Internal
Flammability and burn tests	No Ignition	SAE J369
	Passed	FMVSS 302
	Passed	CMVSS
	Passed	ISO 3795
	No Ignition	ASTM D5132
Salt Spray Testing		
ASTM G85-11 Annex 2 Cyclic Acidified Salt Spray	Passed	ASTM G85-11

Basalt Yarn Technical Characteristics

Thermal		Physical / Mechanical			
Maximum application temperature	982°C	Density	2.75 g/cm ³		
Sustained operating temperature	750°C	Filament diameter	9 - 23 microns		
Minimum operating temperature	-260°C	Tensile strength	4840 MPa		
Thermal Conductivity	0.031 - 0.038W/(m•K)	Compression	550,000 psi		
Virtification conductivity	1050°C	Elastic modulus	89 GPa		
Glow loss	1.91%	Elongation at break	3.15%		
Thermal expansion coefficient	8.0ppm/°C	Absorption of humidity (65% RH)	<0.1%		
Acoustics		Stability at tension (20°C)	100%		
		Stability at tension (200°C)	95%		
		Stability at tension (400°C)	82%		
Sound absorption coefficient	0.9 - 0.99%	Chemical resistance			
Electrical		<i>Percentage weight loss after 3 hrs boiling in:</i>			
		Specific volume resistance	1 ^{10x12} ohm.m	H ₂ O	0.20%
		Loss angle tangent frequency	0.005 (1 MHz)	2N NaOH (sodium Hydroxide)	5.00%
		Relative dielectric permeability	2.2 (1 MHz)	2N HCL (Hydrochloric acid)	2.20%

The information contained herein is believed to be reliable. Users should make their own evaluations on the products and materials to determine the suitability applications.