DAVLYN

KEEPING HEAT IN ITS PLACE

TEPHREX™ BASALT SLEEVES

KNITTED BASALT SLEEVE

MATERIALS
Basalt

AVAILABLE CONSTRUCTION OPTIONS
Knitted

MAXIMUM CONTINUOUS TEMPERATURE
1382°F (750°C)

SIZE RANGE
1” (25mm) - 6” (152mm)

AVAILABLE OPTIONS

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

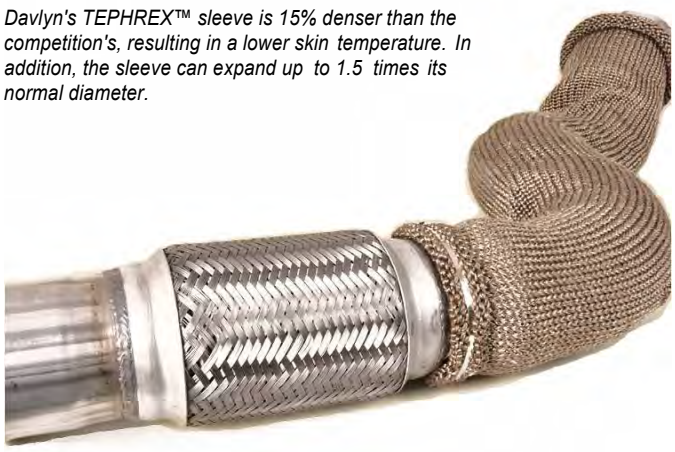
TYPICAL INDUSTRIES
Automotive, Working Vehicle, Construction Equipment, OEM, Generators, Engine Exhaust, Locomotive

This extreme temperature TEPHREX™ basalt knitted sleeve provides excellent thermal protection and will withstand continuous exposure to temperatures of up to 1382°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 TEPHREX™ 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.

TEPHREX™ 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 TEPHREX™ 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.



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BASALT ENGINEERING DATA

Basalt Sleeve Performance Testing

Test	Result	Test Specification
Thermal Testing		
700ºC 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	Passed	ASTM G85-11
Cyclic Acidified Salt Spray		

Basalt Yarn Technical Characteristics

Thermal		**Physical / Mechanical**	
Maximum application temperature	982ºC	Density	2.75 g/cm^3
Sustained operating temperature	750ºC	Filament diameter	9 - 23 microns
Minimum operating temperature	-260ºC	Tensile strength	4840 MPa
Thermal Conductivity	0.031 - 0.038W/(m•K)	Compression	550,000 psi
Virtification conductivity	1050ºC	Elastic modulus	89 GPa
Glow loss	1.91%	Elongation at break	3.15%
Thermal expansion coefficient	8.0ppm/ºC	Absorption of humidity (65% RH)	<0.1%
		Stability at tension (20ºC)	100%
Acoustics		Stability at tension (200ºC)	95%
Sound absorption coefficient	0.9 - 0.99%	Stability at tension (400ºC)	82%
Electrical		**Chemical resistance**	
		Percentage weight loss after 3 hrs boiling in:	
Specific volume resistance	1^{10x12} ohm.m	H_2O	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.

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