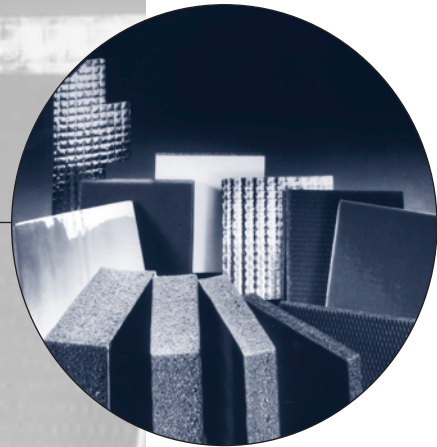


# Absorbing Foams

Materials Summary Sheet

1



Offering solutions for a wide range of applications such as...

Heavy trucks



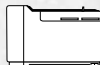
Leisure vehicles



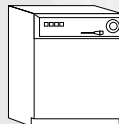
Machine enclosures



Office equipment



Appliances



Boats



**E·A·R**<sup>™</sup>

Aero Technologies • a 3M company

# Absorbing Foams

TUFCOTE® acoustical absorbing foams are widely used to reduce noise levels within a given space—from equipment cabinetry to vehicle cabs. These tough urethane foams are easily cut and installed, and are available with a variety of protective facings, in

thicknesses ranging from .25-inch to 2-inches, to match the environmental needs of most any application.

- Economical, functional sound absorption
- Available in sheets, rolls or easily installed custom die-cut forms

- Available in composite form with TUFCOTE barriers and with pressure-sensitive adhesive (PSA) backing
- Select from E-, M-, and H-Series, depending on flammability requirements

E-A-R has formulated TUFCOTE acoustical foams to meet the needs of specific markets. M-Series foams, e.g., M-100RM, have been developed specifically for transportation applications, such as heavy-duty trucks. E-Series foams are for general OEM use. H-Series foams include additional flame retardant levels and are designed to meet industry requirements for electrical enclosures, generators and similar equipment.

Typical Properties							
Property		x-100SM	x-100CM	x-100BT	x-100RM	x-100BU	x-100SF
<b>Description</b>		1 mil	1 mil	1.5 mil	1 mil Reinforced	2.0 mil	Textured
Top Surface		Alum. Polyester	Clear Polyester	Black Tedlar	Alum. Polyester	Black Urethane	Surface
Thickness cm (in)		2.54 (1.0)	2.54 (1.0)	2.54 (1.0)	2.54 (1.0)	2.54 (1.0)	2.54 (1.0)
<b>Weight Nominal kg/m<sup>2</sup> (lb/ft<sup>2</sup>)</b>	<b>H</b>	0.68 (0.14)	0.68 (0.14)	0.68 (0.14)	0.68 (0.14)	0.68 (0.14)	0.68 (0.14)
ASTM D3574	<b>E</b>	0.65 (0.13)	0.65 (0.13)	0.65 (0.13)	0.65 (0.13)	0.65 (0.13)	0.65 (0.13)
	<b>M</b>	0.63 (0.13)	0.63 (0.13)	0.63 (0.13)	0.63 (0.13)	0.63 (0.13)	0.63 (0.13)
<b>Density Nominal kg/m<sup>3</sup> (lb/ft<sup>3</sup>)</b>	<b>H</b>	27 (1.7)	27 (1.7)	27 (1.7)	27 (1.7)	27 (1.7)	27 (1.7)
ASTM D3574	<b>E</b>	24 (1.5)	24 (1.5)	26 (1.6)	26 (1.6)	26 (1.6)	26 (1.6)
	<b>M</b>	21 (1.3)	21 (1.3)	24 (1.5)	22 (1.4)	24 (1.5)	22 (1.4)
<b>Flammability</b>	<b>H</b>	Listed HF-1	Meets HBF	Meets HBF	Meets HBF	Meets HBF	Listed HF-1
UL 94	<b>E</b>	Listed HBF	Listed HBF	Meets HBF	Listed HBF	Meets HBF	Meets HBF
	<b>M</b>						
FMVSS-302	<b>H</b>	Meets	Meets	Meets	Meets	Meets	Meets
	<b>E</b>	Meets	Meets	Meets	Meets	Meets	Meets
	<b>M</b>	Meets	Meets	Meets	Meets	Meets	Meets
<b>Thermal Conductivity—K Value*</b>							
ASTM C177 W/m•K (BTU in/hr ft <sup>2</sup> F)		.040 (0.28)	.040 (0.28)	.040 (0.28)	.040 (0.28)	.040 (0.28)	.039 (0.27)
<b>Tensile Strength kPa (psi)*</b>							
Foam, ASTM D3574							
at 23C (73F), ambient humidity		103 (15)	103 (15)	103 (15)	103 (15)	103 (15)	103 (15)
aged 70C (158F), 100% humid. x 2 wk		110 (16)	110 (16)	110 (16)	110 (16)	110 (16)	110 (16)
Facing, ASTM D882 kN/m (lbf/in)		6.3 (36)	3.0 (17)	4.4 (25)	5.1 (29)	7.4 (42)	N/A
<b>Tear Strength kN/m (lbf/in)*</b>							
Foam, ASTM D3574		.65 (3.7)	.65 (3.7)	.65 (3.7)	.65 (3.7)	.65 (3.7)	.65 (3.7)
Facing, ASTM D1004							
at 2.54 cm (1 in) width		74 (420)	89 (506)	185 (1055)	85 (484)	231 (1320)	N/A
<b>Elongation (%)*</b>							
Foam, ASTM D3574							
at room temp., ambient humid.		200	200	200	200	200	200
aged 70C (158F), 100% humid. x 2 wk		141	141	141	141	141	141
<b>Temperature Range C (F)</b>							
Peak Performance		-40C to 107C (-40F to 225F)	-40C to 107C (-40F to 225F)	-40C to 107C (-40F to 225F)	-40C to 107C (-40F to 225F)	-40C to 107C (-40F to 225F)	-40C to 107C (-40F to 225F)
<b>RoHS Compliant</b>		Yes	Yes	Yes	Yes	Yes	Yes

The data listed in this materials summary are typical or average values based on tests conducted by independent laboratories or by the manufacturer. They are indicative only of the results obtained in such tests and should not be considered as guaranteed maximums or minimums. Materials must be tested under actual service to determine their suitability for a particular purpose.

