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PYROSORB-E, is open celled acoustic/thermal impregnated polyurethane foam. **PYROSORB** was originally developed as safety critical foam, **PYROSORB-E** has been developed to meet the European Harmonized Flammability test. Acoustic performance is good and absorption coefficients are typical for a cellular material, but unusually high deadening performance is attributable to the high density of approximately 100 kg/m^3. The high mass helps to reduce vibration in metal enclosures hence drumming and noise breakout.

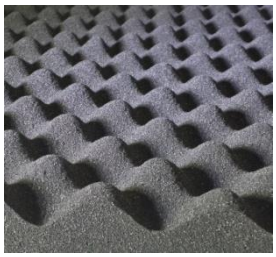
PYROSORB-E

FLAMMABILITY PROPERTIES

METHOD	RESULT
BS 476 Part 5	Non-Ignition
BS 476 Part 6	I ≤12, I_1≤6
BS 476 Part 7	Class "1"
BS 476 P6 & P7 Building Regulations	Class "O"
BS EN ISO 4589-3	No ignition, tested at 240°C, 300°C, 360°C and 380°C
UL94	V-0, 94-5V
BS6853:1987 App. B.5.3	$A_{0(max)}$<5
NES 713	<3.0
EN 13501-1:2007 + A1:2009 EN ISO 11925-2 and EN13823	B-s2, d0

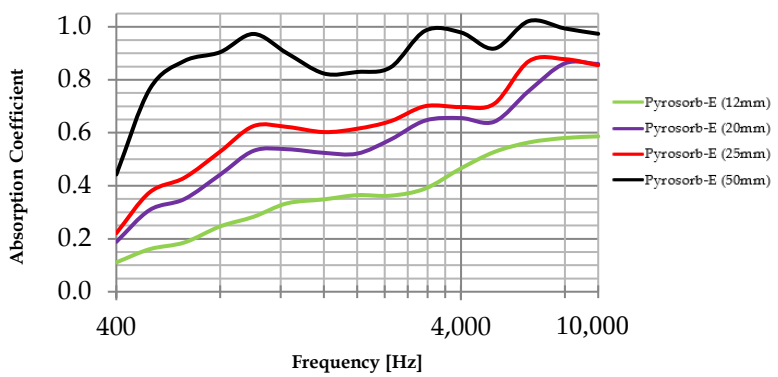
PHYSICAL PROPERTIES

METHOD	RESULT
Density (kg/m^3)	>100
Hardness (N)	160 – 200
Tensile Strength (kPa)	>70
Elongation at Break (%)	>90%
Thermal Conductivity (W/mK)	0.048 – 0.051
Erosion Resistance	6000 ft/min
Working Temperature (°C)	-40 - ~+110
CFC Free	Yes



ACOUSTIC PERFORMANCE OF PYROSORB-E

ASTM C384/ISO 10534-2 and ISO 354:2003 (Previously BS EN 20354) are both standard tests for measuring absorption coefficients. ASTM C384/ISO 10534-2 is a laboratory scale test measuring normal incidence coefficients. Both methods give an indication of the potential performance of the material under the test. Whilst the latter reverberation room method may prove more relevant in most practical situations, neither test can predict overall performance in a real application.



	Frequency (Hz)				
	500	1000	2000	4000	10,000
Pyrosorb-E 6mm	0.08	0.15	0.23	0.26	0.42
Pyrosorb-E 10mm	0.13	0.22	0.31	0.36	0.51
Pyrosorb-E 12mm	0.16	0.28	0.37	0.47	0.59
Pyrosorb-E 15mm	0.20	0.36	0.42	0.57	0.73
Pyrosorb-E 20mm	0.31	0.53	0.52	0.66	0.86
Pyrosorb-E 25mm	0.38	0.63	0.62	0.70	0.86
Pyrosorb-E 30mm	0.44	0.73	0.69	0.75	0.94
Pyrosorb-E 35mm	0.54	0.83	0.76	0.87	0.97
Pyrosorb-E 40mm	0.60	0.89	0.78	0.91	0.95
Pyrosorb-E 50mm	0.77	0.97	0.83	0.98	0.97