

PYROSORB-S TYPICAL PROPERTIES

FLAMMABILITY PROPERTIES

METHOD RESULT

BS 476 Part 5 Non-Ignition BS 476 Part 6 I ~12, 11~6 BS 476 Part 7 Class "1" BS 476 P6 & P7 Building Regulations Class "0"

BS EN ISO 4589-3 No ignition, tested at

UL94 Classification V -0 94-5V ,

French Classification MINot A available(*) BS6853:1987 App. B.5.3 AO(max)<5 NES 713 <3.0

PHYSICAL PROPERTIES

METHOD RESULT Density (Kg/m³) 75 - 100 Hardness (N) 120 - 180 Tensile Strength(Kpa) >70 Elongation at Break (%) >90% Thermal Conductivity(W /mK) 0.048 - 0.051 Erosion Resistance 6000 flmin Working Temperature (C) -40 - + 110 CFC Free Yes

(*) M1 rating has not been independently confirmed on this grade. Others grades have been certified.

C2005051 replacing G1208031 replacing H0303033

ACOUSTIC PERFORMANCE OF PYROSORB-S

ASTM and BS EN 20354 (previously BS3638 : 1963) are both standard tests for measuring absorption co-efficients. ASTM C384 is a laboratory scale test measuring normal incidence co-efficients. 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.

Absorption co-efficients : ASTM C384

Thickness (mms)	Frequency (Hz)					
	125	250	500	1000	2000	4000
12	---	0.04	0.14	0.15	0.29	0.54
25	---	0.07	0.14	0.32	0.80	0.71
50	0.11	0.11	0.50	0.86	0.84	0.90

Absorption Co-efficients : BS EN 20354 (BS3638) : 1963

<u>Thickness</u>	<u>Frequency (Hz)</u>						
(mms)	63	125	250	500	1000	2000	4000
12	---	0.06	0.09	0.18	0.29	0.38	0.58
25	---	0.09	0.22	0.38	0.52	0.63	0.73
50	0.05	0.24	0.47	0.75	0.84	0.87	1.02
100	0.12	0.41	1.01	1.10	0.96	1.03	1.06

PYROSORB-S is also available in a profiled form (also known as egg-box or convoluted). The acoustic absorption of these products is better than the equivalent flat thickness in the frequency range 250 to 1000 Hz

Absorption Co-efficients : BS EN 20354 (BS 3638) : 1963

<u>Thickness before Profiling (***)</u>	<u>Frequency (Hz)</u>						
(mms)	63	125	250	500	1000	2000	4000
25 (*)	0.01	0.06	0.12	0.22	0.35	0.47	0.58
25 (**)	0.01	0.05	0.12	0.21	0.32	0.39	0.51
50 (*)	0.02	0.10	0.25	0.44	0.61	0.70	0.72
50 (**)	0.02	0.10	0.23	0.42	0.56	0.60	0.70

(*) Profile side away from the noise source.

(**) Profile side towards the noise source.

(***) The actual sizes tested were

25mm profiled to 2mm base 21mm rise

50mm profiled to 7mm base 36mm rise