

Syntactic Foams



Precision Acoustics are pleased to offer a range of glass-sphere syntactic foam made by using a high performance epoxy resin as the polymeric binder. The product can be supplied as a 2 (or 3) part 'liquid' kit, or as a moulded product in rod or sheet form. Supplied in 2 (or 3) component kit form it presents the end-user with the option of casting detailed shapes without subsequent and costly machining. The cured product is hard, tough and of low specific gravity. Mouldings can be easily machined to produce intricate and detailed components.

THIS COMBINATION OF PROPERTIES PRODUCES A MATERIAL THAT CAN BE USED IN AREAS SUCH AS:

Aptflex F30	Mid-range syntactic foam providing compromise between density and crush strength
Aptflex F40	Low-cost syntactic foam but low hydrostatic crush strength
Aptflex F50	Highest hydrostatic crush strength in the range
Aplex R3	Lowest density syntactic foam with greatest buoyant uplift

COMPARISON OF PROPERTIES

Property	Aptflex F30	Aptflex F40	Aptflex F50	Aplex R3
Colour	Green	Yellow	Light Blue	Orange
Hydrostatic crush strength (MPa)	45	>6.2	>69	>6.2
Equivalent ocean failure depth (m)	4470	>615	>6850	>615
Longitudinal wave speed (m/s)	2173 ± 30	2017 ± 30	2350 ± 30	2034 ± 30
Density (kg/m ³)	650 ± 20	670 ± 20	720 ± 20	570 ± 20
Buoyant uplift (kg/m ³)	350	330	280	430
Acoustic Impedance (MRayls)	1.41	1.35	1.7	1.16
Hardness (Shore D)	70 ± 3	68 ± 3	70 ± 3	70 ± 3
Mix ratio by weight (A:B or A:B:C)	2.13:1	2.0:1	2.4:1	2.8:1.63:0.57

All information is based on results gained from experience and tests, and is believed to be accurate but is given without acceptance of liability for loss or damage attributable to reliance thereon as conditions of use lie outside the control of Precision Acoustics Ltd or Acoustic Polymers Limited.