

FOAMED ALUMINUM ALLOYS OF WIDE USE

Areas of Application

The alloys can be used in construction as wall panels, hung ceilings, slabs for elevators, escalators, and tunnels for the purpose of electromagnetic shielding and sound absorption; in automotive industry as shock-absorbers in bumpers and supporting blocks; in machine-tool building as vibration damping shell

Specification

The foamed aluminum alloys are manufactured as sheets, panels, rods, and granules. They can withstand high deformations (up to 60–80%) at almost constant load.

Density, kg/m ³	0.4–0.8
Compression limit, MPa	2.3–10.6
Heat conductivity, W/(m·K)	3.5–8.0
Sound conductivity, dB/cm	1.1
Electromagnetic shielding ($f = 1 - 1000$ MHz), dB	78–130

Advantages

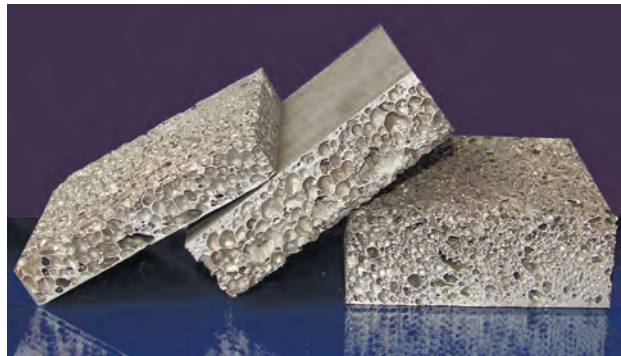
The foamed aluminum alloys have a unique combination of physical and mechanical properties including the ability to absorb impact energy and sound, to damp vibration, and to shield electromagnetic radiation. They are inflammable, nontoxic, and resistant to biological impacts, fuels, lubricants, cleaning detergents, solvents, ultraviolet and atomic radiation

Stage of Development.
Suggestions for Commercialization

TRL4, TRL4
Manufacture of small batches.
Seeking partners for industrial production

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Sandwich panels



Foamed pellets



Sound absorbing panels with foamed pellets

IPR Protection

IPR3