



EPE ACOUSTIC INSULATION

SoundLock

Redefining Acoustic Silence...

Product Datasheet

PRODUCT OVERVIEW

Essen E-Com Ltd presents **SoundLock**, a premium closed-cell Expanded Polyethylene (EPE) acoustic insulation sheet engineered to reduce airborne and impact noise transmission across walls, ceilings, floors, and specialist acoustic environments. Its high-density closed-cell structure delivers exceptional sound damping performance while remaining lightweight and easy to install.

Sound Damping High-density closed-cell structure absorbs and dissipates airborne and impact noise effectively.	Moisture Resistant Closed-cell composition prevents water ingress, mould, and mildew growth.
Thermal Bonus Secondary thermal insulation benefit reduces heat transfer through walls and floors.	Easy to Install Lightweight sheets cut cleanly with standard tools; compatible with adhesive or mechanical fixing.

SHEET DIMENSIONS

	Size 1	Size 2
Sheet Dimensions	4 ft × 4 ft	1 m × 2 m
Available Thickness	25 mm · 50 mm · 75 mm · 100 mm	25 mm · 50 mm · 75 mm · 100 mm
Custom Lengths	Available upon special request	Available upon special request

TECHNICAL SPECIFICATIONS

Category	Key Parameter	Reference Standard	25 mm	50 mm	75 mm	100 mm	Unit
ACOUSTIC	Sound Absorption Coeff. (NRC)	ISO 354	0.55	0.65	0.75	0.85	NRC
	Sound Transmission Class (STC)	ASTM E90	28	32	36	40	dB
	Impact Sound Reduction	ISO 717-2	14	18	22	26	dB
THERMAL	Thermal Conductivity (k-value)	ASTM C518	0.034	0.034	0.034	0.034	W/(m·K)

	Thermal Resistance (RSI value)	ASTM C518	0.74	1.47	2.21	2.94	m²·K/W
PHYSICAL	Compressive Strength (25%)	ASTM D3575	≥ 80	≥ 90	≥ 100	≥ 110	kPa
	Dimensional Stability	ASTM D2126	≤ 2	≤ 2	≤ 1.5	≤ 1.5	%
	Tensile Strength	ASTM D1623	≥ 200	≥ 200	≥ 220	≥ 250	kPa
MOISTURE	Water Absorption (Volume)	ASTM C272	≤ 0.1	≤ 0.1	≤ 0.1	≤ 0.1	%
	Water Vapor Permeability	ASTM E96	≤ 0.05	≤ 0.05	≤ 0.04	≤ 0.04	perm-in
DURABILITY	Service Temperature	ASTM D3575	-40/+80	-40/+80	-40/+80	-40/+80	°C
	UV Stability (Accelerated)	ASTM G154	Pass	Pass	Pass	Pass	
	Alkali Resistance	ISO 175	Pass	Pass	Pass	Pass	

APPLICATIONS & USES

Walls & Ceilings	Floors & Underlay	Studios & Home Theatres
• Interior wall acoustic lining • Partition wall inserts • Suspended ceiling underlay • Apartment inter-floor ceilings	• Floating floor underlay • Screed and concrete sub-floors • Gym and sports hall flooring • Under-tile acoustic barrier	• Recording studio wall lining • Home theatre sound dampening • Podcast and broadcast booths • Music practice rooms

During Transportation: Keep sheets flat on clean pallets. Do not stack heavy materials on top of SoundLock sheets. Protect from sharp objects and store away from direct sunlight, open flame, and moisture during transit.

