MLV – Mass Loaded Vinyl 3 mm

roll 100 × 500 cm, heavy soundproofing barrier 5.5 kg/m² for walls, floors and ceilings

PROPERTY	VALUE	SOURCE
Material	dense PVC with mineral filler (calcium carbonate) and plasticiser	manufacturer
Surface	one side smooth vinyl, the other side fabric backing	
Thickness	3 mm ± 0.1 mm	manufacturer
Surface weight	approx. 5.5 kg/m²	our own weighing
Roll size	100 × 500 cm (5 m²)	
Roll weight	27.85 kg	our own weighing
Colour	grey to dark grey	
Sound absorption coefficient α	0.02–0.05 (125–2,000 Hz)	test ATC200140, Acoustic Testing Center, Chinese Academy of Sciences
Measured sound reduction of the MLV specimen	17 / 19 / 23 / 28 / 33 / 37 dB at 125 / 250 / 500 / 1,000 / 2,000 / 4,000 Hz	measurement of a reinforced MLV specimen, Riverbank TL13-132
Weighted sound reduction index Rw	R_w = 27 dB (C = 0; C_{tr} = −3)	calculated according to EN ISO 717-1 from the Riverbank TL13-132 measurement
Reaction to fire	class B1 (B) according to Chinese standard GB 8624-2012 – burns only with great difficulty, the best class plastics and vinyl can achieve; only class A is better (non-combustible materials such as stone, concrete, mineral wool, plasterboard); oxygen index 36.3 %	fire test, report 95JTGAA2300011 (2023)
RoHS (heavy metals, PBB, PBDE)	compliant	SGS test SHAMLC2311930801
Service temperature	−10 to +80 °C, ideally installed at +15 to +20 °C	typical range for MLV sheets
Outdoor use	only when covered, not UV resistant	
Self-adhesive layer	no	
Packaging	roll in a box 18 × 18 × 105 cm	