

COPERSOUND PE

CHARACTERISTICS: **Copersound PE** is an airborne noise protection covering that consists of a sound insulating bitumen polymer layer being reinforced with surfacing mat; the extrados of the covering shows a green coloured fabric and the covering is moreover combined with a sound resistant expanded reticulated closed-cell polyethylene layer - density 33 Kg/m³.

Since the sound insulating layer consists of a bitumen polymer sheet, it does not only ensure water tightness, but as continuous element, it also improves the acoustic performance by closing possible forming gaps, which could allow the airborne noise to propagate.

The physical reticulation of the sound resistant layer and the water tight closed-cell structure allow **Copersound PE** to have remarkable long lasting sound & heat insulating properties.

Copersound PE is capable of solving airborne noise problems in partition walls.

Copersound PE shall be applied to the wall by means of neoprene glue and overlapping the layers by approximately 5 centimetres. In case of need, mechanically fix the membrane on the upper edges. To improve the adhesive properties of the glue, it is advisable to glue the part being covered with the coloured polypropylene fabric.

ADVANTAGES:

- Excellent acoustic performance.
- Effective vapour resistance, rotproof material.
- High flexibility, ease of cutting, suitability for any kind of surface
- Ease of laying; thanks to the reduced thickness, the building dimension system does not need to be modified
- Particularly suitable for restoration and restructuring work

For correct installation of Copersound PE, please refer to laying instructions described into "Copersound" leaflet provided by Copernit SpA.

Unit weight (EN 1849-1)	4,0 Kg/m ²
Total thickness (indicative value)	5,0 mm
Reticulated PE mat thickness (indicative value)	3,0 mm
Bitumen polymer layer thickness (EN 1848-1)	2,0 mm
Length (EN 1848-1)	7,5 m
Sheet total width (EN 1848-1)	1,0 m
Reticulated PE mat width (EN 1848-1)	1,0 m
Heat conductivity - Reticulated PE mat (λ) - Bitumen polymer layer (λ)	0,039 W/mk 0,17 W/mk
Watertightness – method A (EN 1928)	> 60 KPa
Resistance to water vapour diffusion (μ) (EN 1931)	100.000
AIRBORNE NOISE INSULATION VALUES (ISO 140-3:2006, ISO 717-1:2007)	
Apparent evaluation index of sound insulating power R_w Double wall made of "double UNI" 25x25x8 brickwork with inner insulation Copersound PE panels and air cushion (ISTITUTO GIORDANO 272593)	52 dB C= -2 dB C _{tr} = -7dB
Apparent average dynamic stiffness, s'_t (UNI EN 29052-1) - Copersound PE (ISTITUTO GIORDANO 268324)	159 MN/m ³