

COPERSOUND P

CHARACTERISTICS: **Copersound P** is a rolled multi-layer product consisting of a sound insulating layer of bitumen polymer compound with extrados coating in green coloured fabric, a sound resistant non-woven polyester fibre layer in white colour, as well as a longitudinal overlapping selvedge (approx 5 cms), in order the overlapping of the joints easily to occur while laying.

The sound insulating bitumen polymer layer is a continuous sheet that does not only ensure a water resistance, but also improves the acoustic performance by occluding possible fissures, which could allow the airborne noise to spread.

Moreover, during the screed development, such sheet does not allow the green cement mortar to absorb the non-woven fabric the sound resistant layer consists of, since this would result in a reduction of the stretch properties of the latter; in this way, it is possible to reduce the transmission of the vibrations caused by impact noise, sound sources etc...

The bitumen polymer membrane makes Copersound P resistant to static and dynamic perforation, i.e. to sub-base roughness, field activity during the laying phase and the screed weight, as well.

The sound resistant sheet consisting of stretch needle felt polyester fibres functions as a "spring" in the physical "mass-spring" system, since it allows a proper dynamic stiffness as well as a vibration deadening to occur and this results in optimum soundproofing properties. Moreover, the stretch properties of such sheet allow it to fit to the laying surface and the result is an increased adhesion force.

Copersound P is capable of solving problems arising from impact noise in flooring, floors, balconies and false ceilings, in which this product also functions as an effective barrier against vapour and humidity.

Copersound P can moreover be utilized as anti-condensation coating in wooden roofs.

ADVANTAGES:

- Excellent acoustic performance showing an optimum ratio between Dynamic stiffness and Compressibility.
- The product is watertight and rot proof.
- High resistance to walkability, static and dynamic perforation, tears; the product does not allow perforation and tears due to movements and building yard's activities to occur.
- High flexibility, ease of cutting, suitability for any surface.
- Ease of laying: the product does not require modifications to the building level system.

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

References and features of installation accessories SOUNDBASE (sound deadening membranes to be used under partition walls) and SOUNDBAND (adhesive L-shaped PE closed cell band, to be used to avoid acoustic bridges between vertical walls and flooring) are described in the same "Copersound" leaflet.

Unit weight (EN 1849-1)	2.0 Kg/m ²
Total thickness (indicative value) - Copersound P 100 - Copersound P 200 - Copersound P 400	6.5 mm 7,5 mm 8.5 mm
Polyester fibre mat thickness (indicative value) - Copersound P 100 - Copersound P 200 - Copersound P 400	5.0 mm 6.0 mm 7.0 mm
Bitumen polymer layer thickness (EN 1848-1)	1.5 mm
Length (EN 1848-1) - Copersound P 100 - Copersound P 200 - Copersound P 400	10,0 m 10,0 m 7,5 m
Bitumen polymer layer thickness (EN 1848-1)	1.0 m
Polyester fibre mat thickness (EN 1848-1)	0.95 m
Longitudinal selvedge width (EN 1848-1)	5 cm
Heat conductivity - Polyester fibre mat (λ) - Bitumen polymer layer (λ)	0,045 W/mk 0,17 W/mk
Watertightness – method A (EN 1928)	> 60 KPa
Resistance to water vapour diffusion (μ) (EN 1931)	100.000
IMPACT NOISE SOUND INSULATION VALUES (ISO 717/82, UNI 8270/7)	
Evaluation index for impact noise sound pressure level, ΔL_w (UNI EN ISO 140-8: 1999) - Copersound P 200 (CSI n° 0047a/DC/ACU/02) - Copersound P 400 (CSI n° 0032-A/DC/ACU/06)	28.5 dB 25 dB
Apparent average dynamic stiffness, s'_t (UNI EN 29052-1) - Copersound P 100 (ISTITUTO GIORDANO 268320) - Copersound P 200 (ISTITUTO GIORDANO 268322) - Copersound P 200 double layer (ISTITUTO GIORDANO 268321) - Copersound P 400 (ISTITUTO GIORDANO 268323)	16 MN/m ³ 11 MN/m ³ 5 MN/m ³ 14 MN/m ³
Average dynamic stiffness, s' (UNI EN 29052-1) - Copersound P 100 (ISTITUTO GIORDANO 268320) - Copersound P 200 (ISTITUTO GIORDANO 268322) - Copersound P 200 double layer (ISTITUTO GIORDANO 268321) - Copersound P 400 (ISTITUTO GIORDANO 268323)	64 MN/m ³ 40 MN/m ³ 21 MN/m ³ 34 MN/m ³
Compressibility (UNI EN 12431) - Copersound P 100 - Copersound P 200 - Copersound P 200 double layer - Copersound P 400	≤ 2 mm ≤ 2 mm ≤ 3 mm ≤ 3 mm