

**PRODUCT DESCRIPTION AND APPLICATION**

**ARCO CEILING** is a manufactured soundproofing/sound absorbing eco-friendly made from recycled latex and foam coupled with a gypsum panel. The thicknesses available are 20.0 and 30.0 mm. The product is rot-resistant, it is not water-soluble, it is not irritating to skin contact, eyes and the respiratory system. The panel keeps its technical performance over time and it is applied at the intrados of ceiling structures to reduce the impact noise between different housing units under restoration.

**GENERAL INFORMATION AND ADVICE**

The impact noise insulation [ $L'_{nw}/L'_{nTw}$ ] for the different kinds of ceiling structures will be obtained using **ARCO CEILING**, a product by **ARCOACUSTICA** Company. This product will be placed at the intrados of existing floor and it will be fixed with adhesive and polypropylene dowels. Product thermal resistance (R) is 0.44 and 0.71  $m^2K/W$ , dynamic stiffness ( $s'$ ) is 8.5 and 6.0  $MN/m^3$ , panel's airborne noise insulation ( $R'_w$ ) 33.5 and 35.0 dB. The system implementation will have to be carried out in compliance with the instructions specified in the installation procedure by the manufacturer.



**ACOUSTIC SYSTEM**

**SUMMARY OF MAIN FEATURES**

Evaluation criterion	Procedure	Symbol	Ceiling <sup>20</sup>	Ceiling <sup>30</sup>	U.M.
Nominal thickness	IM/AL 2014	s	20.0	30.0	mm
Sheet length	IM/AL 2014	L	200.0	200.0	cm
Sheet height	IM/AL 2014	W	120.0	120.0	cm
Surface mass	IM/AL 2014	Ms	12.0	13.0	Kg/m <sup>2</sup>
Density	IM/AL 2014	Mv	/	/	Kg/m <sup>3</sup>
Thermal conductivity	EN 12667 ISO 8302	$\lambda_D$	0.038	0.038	W/mK
Elastomer D.S.C.	ISO 11357/1 ISO 357/2	C	1800.0	1800.0	J/kgK
Water vapour transmission resistance	EN 12086	$\mu$	5.2	5.2	/
Product thermal resistance	ISO 13786 ISO 6946	R	0.44	0.71	$m^2K/W$
Fire reaction class	EN 13501/1	Classe	F	F	/
Elastomer lower heating value	/	LHV	38000	38000	kJ/kg

**Warning:** ArcoAcustica suggests the handling of the rolls in the works carried out by two people.

**ACOUSTIC PROPERTY**

Evaluation criterion	Procedure	Symbol	Ceiling <sup>20</sup>	Ceiling <sup>30</sup>	U.M.
Airborne noise insulation before application	ISO 140/4 ISO 717/1	$R'_w$	44.0	44.0	dB
Footfall noise insulation before application	ISO 140/7 ISO 717/2	$L'_{nw}$	85.0	85.0	dB
Increased sound insulation	ISO 140/4 ISO 717/1	$\Delta R'_w$	7.5	9.5	dB
Footfall noise reduction	ISO 140/7 ISO 717/2	$\Delta L'_w$	18.5	21.0	dB
Airflow resistance	ISO 29053	r	>100.0	>100.0	kPa*s/m <sup>2</sup>
Dynamic stiffness	ISO 29052/1	$s'$	8.5	6.0	$MN/m^3$
Panel's airborne noise insulation	ISO 140/4 ISO 717/1	$R'_w$	33.5	35.0	dB

**Warning:** ArcoAcustica disclaims any civil or criminal liability arising from not compliant products using

**PACKING**

Evaluation criterion	Ceiling <sup>20</sup>	Ceiling <sup>30</sup>	U.M.
Pallet size	120x200	120x200	cm
Product weight on pallet	1440.0	1060.8	kg
Number of meters per pallet	120.0	81.6	m <sup>2</sup>
Number of panel per pallet	50	34	pannelli

**Warning:** ArcoAcustica reserves to change the technical specifications of all products without prior notice.