

# PROFESSIONAL «maximum» 2 mm

**Material:** Physically cross-linked closed cell polyolefin foam, laminated with a polyolefin-foil as water vapour control layer. PROFESSIONAL maximum is manufactured without CFCs and HCFCs and contains neither plasticizers nor heavy metals or other hazardous substances.

**Application:** PROFESSIONAL «maximum» underlay is applicable for floating installation under laminate and parquet floorings.

- Features**
- outstanding damping of walking sound and excellent damping of impact sound
  - exceptional compressive strength and dynamic load resistance, which ensures extended durability
  - a "heavy" underlay with integrated water vapour control layer which is nevertheless very easy to carry and lay
  - a good conformability provides a very good punctual compensation of unevenness of the subfloor

## Technical data:

RWS	IS	CS	CC	DL	PCv	RLB	TR	SD	RTF
[ % ]	[ dB ]	[ kPa <sub>9</sub> ]	[ kPa ]	70 kPa	[ mm ]	[ m ]	[ m <sup>2</sup> K/W ]	[ m ]	[ class ]
30	20	≥ 140	40	c ≥ 200.000	1,3	1,0	0,048	150	E <sub>fl</sub>

Property		Unit	Value	Norm
<b>d:</b>	<b>Thickness of the underlay</b> measured at 100 Pa pre-load	mm	2 (±10%)	EN 823 <sup>1)</sup>
	<b>Foam colour</b>	-	silver grey (015)	
<b>RWS:</b>	<b>Reflected walking sound</b> • sound reduction compared to reference underlay	%	30	EPLF working draft 021029-5 F1
<b>IS:</b>	<b>Impact sound improvement</b> • measured under 7 mm laminate flooring	dB	20	ISO 140 / 717
<b>CS:</b>	<b>Compressive strength</b> • tested at 0.5 mm compression under 100 Pa pre-load	kPa	≥ 140	EN 826 <sup>1)</sup>
<b>CC:</b>	<b>Compressive creep under long term static load</b> • max. thickness loss of 0.5 mm extrapolated to 10 years	kPa	40	EN 1606 <sup>1)</sup>
<b>DL:</b>	<b>Dynamic load</b> • number of load cycles at max. deformation ≤ 0.5 mm • alternating cycles from $\sigma_{min} = 100$ Pa to $\sigma_{max} = 70$ kPa	no. of cycles	≥ 200'000	EN 13793 <sup>1)</sup>
<b>PCv:</b>	<b>Punctual conformability</b> to even out unevenness of subfloor	mm	1,3	FprCEN TS 16354
<b>RLB:</b>	<b>Resistance to impact by large diameter ball</b> • to be tested on flooring system (underlay+laminat flooring)	m	1,0	EN 13329 Annex F and EN 438 Chapter 21
<b>TR:</b>	<b>Thermal resistance</b> <sup>2)</sup> at 24°C mean temperature	m <sup>2</sup> K/W	0,048	EN 12667 / EN 12664
<b>SD:</b>	<b>Water vapour diffusion resistance of the underlay</b> <sup>3)</sup> • diffusion-equivalent air layer thickness, SD-value • acc. EN 12086 method A, measured at 23°C, 0-50% rel. humidity	m	150	EN 12667 / EN 12086
	foil-type:	-	PE150	
	foil colour:	-	black	
<b>WA:</b>	<b>Water absorption</b> by foam	Vol%	< 1	DIN 53571
<b>RTF:</b>	<b>Reaction to fire</b>	class	E <sub>fl</sub>	Test acc. EN ISO 11925-2 classification acc. EN 13501-1, Table 2

1) All tests are done according to the mentioned standards and the modifications given in document FprCEN TS 16354:2011.

2) According to the recommendations of "Bundesverband Flächenheizungen und Flächenkühlungen e.V. (BVF)" and EN 1264-3 this underlay is applicable for underfloor heating systems. The total R-value of the complete floor construction of max. 0,15 m<sup>2</sup> K/W has to be considered.

3) The given value for water vapour diffusion (SD-value) is valid for the underlay only, when the butted click connections are carefully sealed with tape.

**Chemical resistance:**

- against water, most domestic cleaners, solutions of salt, acids, bases
- partly durable against organic solvents and hydrocarbons

**Storage conditions:**

- do not store outdoors, protect from exposure of sunlight
- prevent electrostatic discharges, keep away from ignition source, do not smoke!