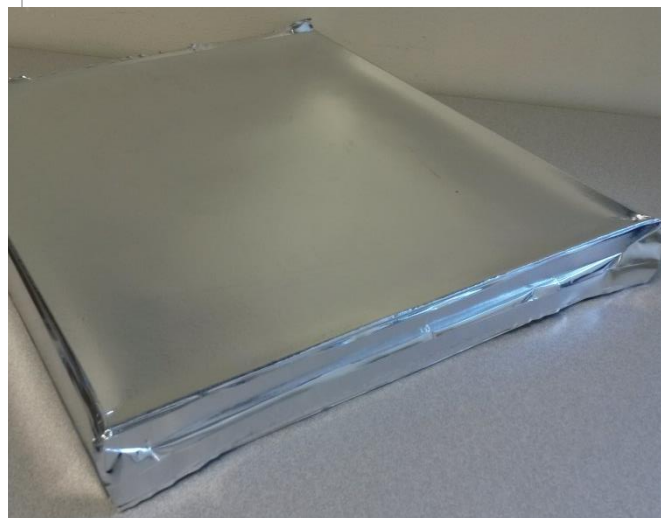


## VIP4ALL Vacuum Insulation Panel PRODUCT DATA

Surface colour

Silver



Geometry	Rectangular shape (without protruding flanges)
Standard dimension (L x W)	400 mm x 360 mm (other dimensions possible)
Thickness	30- 40 mm
Density (EN 1602)	around 285 kg/m <sup>3</sup> at 40 mm thickness
Thermal conductivity	0.007 W/mK (at delivery)
Temperature stability	-70 to +70°C
Thermal shock resistance	Not sensitive to heat & cold shock in the given temperature range
Internal gas pressure	< 1 mbar (at delivery)
Increase of gas pressure	approx. 0.1 mbar/year (at 40 mm thickness & normal room conditions)
Length and width tolerance	0 to 400 mm: 0.27% 0 to 360 mm: 1.07%
Thickness tolerance	± 4%
U-value	0.195 W/(m <sup>2</sup> k) (at 40 mm thickness and T <sub>m</sub> =45°C)



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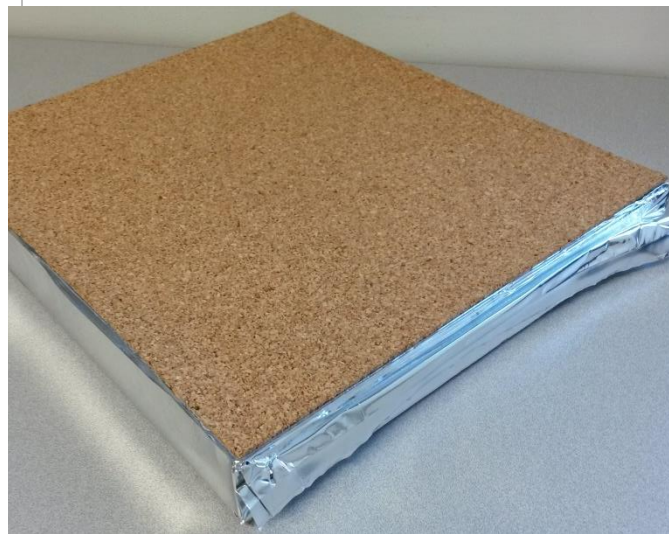
Highly Sustainable and Effective Production of Innovative Low Cost  
Vacuum Insulation Panels for Zero Carbon Building Construction

Mass per area	11.4 kg/m <sup>2</sup> (at 40 mm thickness)
European fire classification (EN ISO 11925-2 and EN 13501)	VIP4ALL panel – at least Class E Building system - Class Bs1d0 (10mm OSB panel +30 mm Vip4ALL panel+12mm gypsum board)
Compressive strength	approx. 300 kPa (at 10% compression)
Service life	Extrapolated and depending on application: up to ~0.010 W/mK after 25 years up to ~0.015 W/mK after 50 years
Notes	Extrapolated increase of thermal conductivity at 23 °C $d\lambda/dt = 0.1 \text{ mW}/(\text{mK year})$ mean increase during 25 years' service life time $\Delta\lambda_{\text{mean}} = 1.25 \text{ mW}/\text{mK}$ mean thermal conductivity $\lambda_{\text{mean}} = 8.25 \text{ mW}/\text{mK}$ Declared value of thermal conductivity $\lambda_D \sim 10 \text{ mW}/\text{mK}$ (including edge effects and aging after 25 years)

## Optional design with protective cork layer

Surface colour

Silver/Brown



U-value

0.208 W/(m<sup>2</sup>K) (at 40-50 mm thickness and T<sub>m</sub>=45°C)