

VACUUM INSULATED PANELS (VIPs) FOR ROOFING APPLICATIONS

WHAT ARE SPRA COMPONENT QUALITY STANDARDS?

SPRA Component Quality Standards set a benchmark of performance for products used in single ply membrane systems. They are a vital aid to specification and define the minimum technical standard for membership of the Association. All SPRA CQS are available by download from www.spra.co.uk

PRODUCT DESCRIPTION

A Vacuum Insulation Panel or VIP for thermal insulation in buildings typically comprises a microporous core which is evacuated, encased and sealed in a thin, gas-tight envelope.

TYPICAL APPLICATIONS

Warm roof and inverted warm roof systems in plain or tapered form (typically a PIR overlay for the tapered component). VIPs may be overlaid with a protective layer of PIR (warm roof) or XPS (inverted) insulation respectively.

HARMONISED EUROPEAN PRODUCT SPECIFICATION

There is no hEN available currently. CE marking is achieved via a European Technical Assessment.

REQUIREMENTS				
Product characteristic	Symbol	Characteristic value/class	Tolerances	Test Method
DIMENSIONAL				
Thickness	d		± 2mm	BS EN 823
Width	b		± 3mm / ± 5mm	BS EN 822
Length	l		± 3mm / ± 5mm	BS EN 822
Deviation from Squareness (on length & width)	S _b		≤ 5mm	BS EN 824
Flatness	S _{max}		± 30mm	BS EN 825
Dimensional stability under laboratory conditions	—	0.5% / DS(N)5		BS EN 1603
Dimensional stability under specified temperature and humidity conditions		DS(70,90)1		BS EN 1604
THERMAL				
Conductivity at 10°C	λ _D λ _D	≤0.007W/mK allowing for edge effect ≤0.007 Declared		BS EN 12667
REACTION TO FIRE				
Euroclass	—	Declared Value	—	EN ISO 11925-2 & classified to EN 13501-1
MECHANICAL				
Density	—	180-220KG/m ³		BS EN 1602
Compressive stress at 10% deformation		≥150kPa / CS(10/Y)150		BS EN 826
Deformation under specified compressive load and humidly conditions		DLT(2)5		BS EN 1605
Oxygen transmission rate		OTR ^{decl}	OTR<0.05	ASTM D3985-05
MOISTURE				
Water Vapour Transmission	μ	Infinite		BS EN 12086

SPRA ASSOCIATE MEMBERS

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