



BEST SOLUTIONS
FOR POLYURETHANE PANELS

TECHNICAL DATA SHEET

Pre-Insulated Polyurethane (PU) HVAC Ductwork System



BS PANEL[®]

TECHNICAL DATA SHEET • LAB TEST RESULTS

The performance characteristics of the Best Solutions Polyurethane Panels have been officially evaluated and verified by independent accredited laboratories. The material demonstrates premium mechanical and physical performance alongside standardized structural parameters, including newly certified fire safety characteristics:

Technical Property / Dimension	Standard Test Method	Units	Average Test Results
Panel Length *	Standard Specification	mm	4000
Panel Width *	Standard Specification	mm	1200
Nominal Thickness *	Physical Measurement	mm	20
Thermal Conductivity (K-Value) @ 10°C	ASTM C518-21	W/m.K	0.0227
Thermal Resistance (R-Value)	ASTM C518-21	m ² -K/W	0.872
Thermal Transmittance (U-Value)	ASTM C518-21	W/m ² -K	1.146
Core Density	ASTM D1622-20	kg/m ³	53.6
Compressive Strength	ASTM D1621-16 (2023)	kPa	66.19
Flexural Strength	ASTM C203-05a-22	kPa	1132
Dimensional Stability	ASTM D2126-25	%	0.18
Water Absorption	ASTM D2842-25	%	0.5
Aluminium Foil Finish	Standard Specification	-	Embossed/Embossed
Flame Spread Index (FSI)	ASTM E84-26a	-	35
Smoke Developed Index (SDI)	ASTM E84-26a	-	140
Fire Classification	IBC Section 803.1.1	Class	Class B

* Standard Manufacturing Tolerance may apply.

TECHNICAL COMPETITIVENESS NOTE

With an average core density of **53.6 kg/m³** and an excellent flexural strength of **1132 kPa**, Best Solutions panels deliver substantially enhanced mechanical rigidity and robustness on construction sites compared to regional industry averages. Furthermore, strict compliance with ASTM E84 testing protocols and the achievement of Class B fire classification under the International Building Code (IBC) guarantees exceptional surface burning performance and a safe interior environment for high-specification projects.

ISO 9001:2015

CERTIFIED QMS

ISO 14001:2015

CERTIFIED EMS

ISO 45001:2018

CERTIFIED OHSAS