

INSUL-PHEN PHENOLIC PIPE SECTIONS TECHNICAL DATA SHEET

Introduction

ISOPARTNER Technical Insulation Solutions has developed the INSUL-PHEN Phenolic Foam range of closed cell insulation products focusing on achieving the highest possible thermal insulation value. INSUL-PHEN Phenolic Pipe Sections are available in a range of densities from 40 kg/m³ to 120 kg/m³.

Increased awareness of energy consumption is driving the construction industry to higher standards of thermal insulation. INSUL-PHEN 40 kg/m³ excels in thermal insulation value with an aged thermal conductivity of 0.025 W/mK. INSUL-PHEN provides solutions to achieve higher insulation values at minimum thickness.

All products in the INSUL-PHEN product range have one other unique feature apart from the highest thermal insulation value and mechanical strength, its fire performance. Independent testing concludes INSUL-PHEN has an extremely low smoke emission and does not create burning droplets. In fire situations it will develop a carbonaceous layer on the exposed surface which protects the deeper layers of the material.

› Type

Pipe Section insulation based on closed cell phenolic foam.

› Temperature Range

INSUL-PHEN phenolic foam will maintain its performance at continuous operating temperatures of -50°C to +110°C. Under special installation conditions INSUL-PHEN can be used in petrochemical applications.

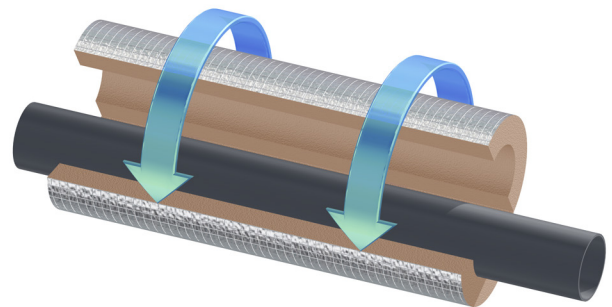
In circumstances where short term exposures could exceed the recommended continuous operating temperatures, please contact ISOPARTNER for advice.

› Application

INSUL-PHEN Phenolic Pipe Sections can be cut to any pipe bore and thickness. ISOPARTNER has developed a standardised system with adhesive and aluminium facing which is certified and delivers thermal insulation, fire safety and durability. The aluminium facing on INSUL-PHEN Pipe Insulation ensures ease of installation.

› Benefits

- Excellent insulation performance
- High fire resistance and fire behaviour
- Excellent thermal stability
- Resistance to thermal shock
- High strength
- Easily cut to size



Properties measured at ambient conditions			INSUL-PHEN, Typical Values
	Standard	Unit	40
Nominal Dry Density	EN ISO 845	KG/m ³	40
Continuous use temperature		°C	-50 to +110
Compressive Strength - Parallel to rise	EN826 @ 23°C	kPa	150
Compressive Strength - Perpendicular to rise	EN826 @ 23°C	kPa	125
Closed Cell Content	EN ISO 4510	%	92
Dimensional Stability	EN 1601	%	<1
Water Absorption	EN 13087	%	<3
Water Vapour Transmission	EN 1286	µm	30
Fire Properties: Euroclass (SBI) - Naked Product	EN 13501-1		BL-s1, d0
Fire Properties: Euroclass (SBI) - Pipe Section with Alu Facing	EN 13501-1		BL-s1, d0
Thermal Conductivity (λ-value) - Initial (Verified within 8 days after production)	EN 12667 @ 10°C	W/mK	0.021
Thermal Conductivity (λ-value) - Aged (Verified after 26 weeks @ 70°C)	EN 12667 @ 10°C	W/mK	0.025

This information is composed for marketing purposes and is accurate to the best knowledge of ISOPARTNER Technical Insulation Solutions Ltd. All Values given are typical values, not guaranteed unless specifically expressed. As ISOPARTNER Technical Insulation Solutions Ltd strives to continually improve our products as a means of continuous development, properties may be subject to change without notice. ISOPARTNER Technical Insulation Solutions Ltd accepts no legal responsibility for use or reliance upon this data. For information regarding specific applications of the product, please contact ISOPARTNER Technical Insulation Solutions Ltd.

ISOPARTNER Technical Insulation Solutions Ltd.

Units 1-4 Keypoint, Rosemount Business Park,
Ballycoolin, Dublin 11, D11XP70, Republic of Ireland

P: +353 1 8829990 **E:** info@isopartner.ie **W:** www.isopartner.ie