
ISOGENOPAK®
PERFECTION AND INNOVATION
Isogenopak®
We Have the Right Product.
ISOGENOPAK
kp
klöckner pentaplast

Isogenopak® Material Characteristics

Isogenopak® is a special rigid PVC film for jacketing of insulated pipes. A dry, clean fitting is guaranteed. The inherent curl makes it the ideal material for quick and easy covering.

Isogenopak® is self-extinguishing and has considerable resistance to acids, alkalis, salts, oil, petrol, alipathic hydrocarbons and corrosive atmospheres.
In addition, the material cannot corrode and is virtually impermeable to water vapour. It is unaffected by fresh and salt water and imprevious to gases, grease and oil.

The chemical characteristics of **Isogenopak**® are matched by equally good physical characteristics: High longitudinal and lateral tear resistance, high elasticity and shock resistance.

Isogenopak® is very light: One square metre, 0.350 mm thick, weighs only about 500 g.

Physiologically harmless, **Isogenopak**® has a light grey smooth surface which guarantees a longlasting elegant appearance. It requires no care or maintenance and also has very good antistatic characteristics.

The material has considerable resistance to temperature changes and is stable from -20°C up to +65°C in indoor use. The thermal conductivity λ of **Isogenopak**® is 0.16 W/mK.

Chemical resistance ensures long product life

Material		Temp °C	Resistance	Material		Temp °C	Resistance
Acetaldehyde	up to 40%, aqueous	20	◖	Carbon monoxide	100%, gaseous	60	●
Acetone	aqueous	20	❍	Methyl alcohol	every concentration	40	●
Aluminium salts		40	●	Mineral oils	free of aroma	60	●
Ammonia	aqueous	40	●	Sodium hydroxide	60%, aqueous	60	●
Benzene (pure aliphatic hydrocarbons)		60	●	Mercury		60	●
Benzene-benzole mix	80/20% (fuel)	20	❍	Nitric acid	diluted, aqueous		
Chlorine gaseous	>1%, wet	20	◖		30-50%	50	●
Chlorine gaseous	dry	20	◖		50-65%	20	●
Hydrogen chloride	dry	60	●		98%	20	❍
Iron salts	diluted solutions	40	●	Hydrochlorid acid	aqueous, up to 30%	60	●
	saturated solutions	60	●	Oxygen	gaseous	60	●
Acetic acid	25 - 60%	60	●	Sulphur dioxide	gaseous, wet	40	●
Ethyl alcohol solutions	aqueous	40	●		gaseous, dry	60	●
	96%	60	◖	Sulphoric acid	40-80%	60	●
Glycerine		60	●		80-90%	40	●
Potassium hydroxide solution	aqueous 50%	60	●		96%	20	●
Potassiferous salts		40	●		96%, fuming	60	◖
Sodium chloride		40	●	Carbon tetrachloride		20	◖
				Hydrogen	gaseous	60	●

Key: ❍ = not resistant ◖ = resistant under certain conditions ● = resistant

Chemical resistance according to annex 1 DIN 8061, 02/1984

Mounting Instructions

Precurled **Isogenopak**® jacketing film is supplied in rolls of 15 to 35 m in length with 1000 mm as the most common width. The **Isogenopak**® system is completed by a large variety of premoulded bends, T-sections, caps and cuffs.

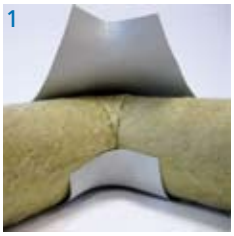
First the insulant must be attached to the pipe without gaps. When using mineral wool sections, loose fill wool can be used to cover the bends and other shapes. The insulant has to be affixed to the pipe consistently.

To attach the **Isogenopak**® jacketing we advise to start with the moulded pieces, e.g. bends (1) and T-sections (2).

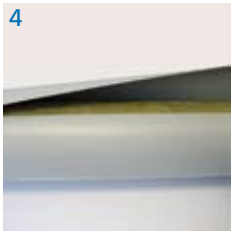
For straight sections **Isogenopak**® is cut from the roll according to the circumference to be cladded. Allow an extra 20-30 mm for overlapping. A guide rail for the cutter (3) has proven its worth.

Because the precurling **Isogenopak**® clings around the insulated pipe (4) almost by itself. Just little additional adjustment is required. The circumferential seams should overlap by about 20-30 mm as well.

Isogenopak® is fixed along the longitudinal seams either by using plastic push-in rivets in distances of about 150 mm (5) or special solvent-based adhesive continuously along the seams (6).



Fitting of a premoulded bend



Fitting of Isogenopak® to a straight section

T-section

Closing longitudinal seams with plastic push-in rivets

Cutting of Isogenopak® with a guide rail

Longitudinal seam closed with special solvent-based adhesive

Technichal Data

Characteristic	Value	Unit	Measuring Method
Impact strength	≥ 400	kJ/m²	DIN EN ISO 8256
Tensile strength	> 35	N/mm²	DIN EN ISO 527
Elasticity modulus	app. 1800	N/mm²	DIN EN ISO 527
Moisture resistance factor μ	ca. 60 000	--	DIN 52615
Linear heat expansion coeffizient	0.9 x 10^{-4}	1/K	Leitz-Dilatometer
Emissivity ε	97	%	ISO 10292 A
Isogenopak® meets the requirements of DIN EN 15701			

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