



Lenzing Jacketing

Innovative cladding solutions!



- ✔ Up to 50% installation time reduction causes large installation cost savings.
- ✔ Lenzing Jacketing is easily installed with just a few simple tools.
- ✔ The light weight of Lenzing Jacketing grants easy transportation and handling on site.
- ✔ Lenzing Jacketing is saltwater resistant, food safe and highly resistant against chemicals.
- ✔ Mechanical tension, impacts and further forces can be absorbed without deformation or damage due to the unique memory effect of Lenzing Jacketing.
- ✔ Lenzing Jacketing is available as a complete cladding system including fittings, accessories and tools.
- ✔ The high UV resistance and physical durability of Lenzing Jacketing is making it the perfect choice for any climatic conditions.

The revolution of insulation cladding

Lenzing Plastics has developed a perfect solution for the cladding of insulated pipes, ducts, boilers, and equipment.

A product that combines optimal physical properties, 100% water tightness and vapour barrier, resistance against climatic influences with appealing look and easy installation. This innovative jacketing system is the first product of its kind that is suitable for indoor and outdoor applications, in all climatic conditions.

Lenzing Jacketing is replacing costly and complex processible aluminium and stainless steel sheet cladding and has already started to revolutionise the insulation industry worldwide.

50% faster

Lenzing Jacketing can be installed up to 50% faster than metal cladding. This is giving insulation contractors and end users a considerable cost advantage.



What is Lenzing Jacketing?

Lenzing Jacketing is a multi layer laminate that consists of several layers of thermoplastics and aluminium.



Recovery effect makes
Lenzing Jacketing
 stay in good shape

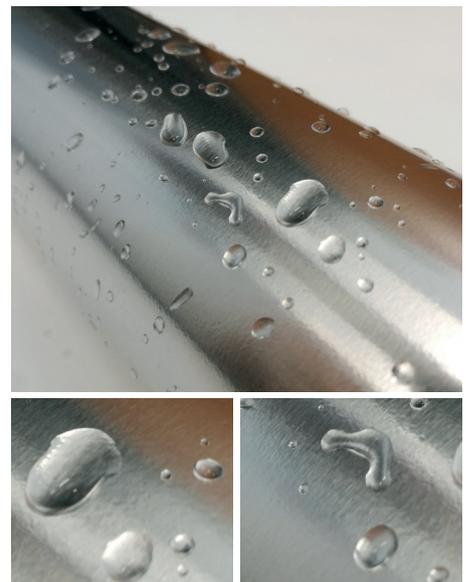
This aluminium layer is acting as vapour barrier. The plastic layers give the construction the desired additional characteristics. The high tensile strength guarantees an excellent protection of the insulation against mechanical stress. This multi layer construction has a high stiffness and a very good recovery effect that avoids dents and wrinkles.

A unique and patented cover layer gives the construction UV-light and weather resistance, it impedes the adherence of dirt and allows easy cleaning. These properties make Lenzing Jacketing the ideal choice for applications wherever appearance is important.

100% water tight and vapour barrier

Lenzing Jacketing is 100% water tight. When installed properly by professionals, this new jacketing system guarantees zero water permeability and very low values of water vapour transmission. Independent test laboratories continuously check the quality of the product to ensure highest quality according to international standards. Water tightness and vapour permeability are the most important quality criteria for any jacketing system.

Inhibiting water and water vapour from infiltrating the insulation guarantees optimal insulation characteristics and avoids corrosion of pipes, air ducts and equipments. A dry insulation is also the most important factor for a sustainable energy management.





Application and utilisation

Applications

- Indoor
- Outdoor
- Hot insulation
- Cold insulation

Typical utilisation

- Construction industry
- Chemical & petrochemical industry
- HVAC
- Power plants
- Solar industry
- Food industry
- Shipbuilding/Offshore
- Pharmaceutical industry
- Tanks



Issues with ordinary cladding materials

Mechanical damages | Leakages | Infiltration of humidity and dirt | Water condensation
Corrosion | Energy loss | Costly maintenance and reconstruction

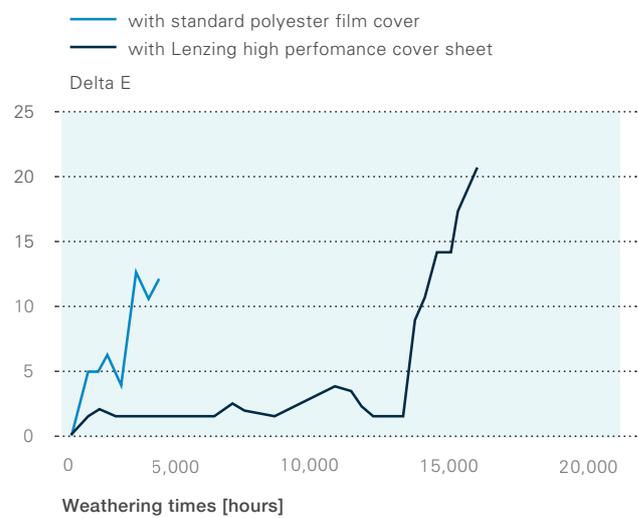




UV-irradiation with fluorescence lamp and water spray

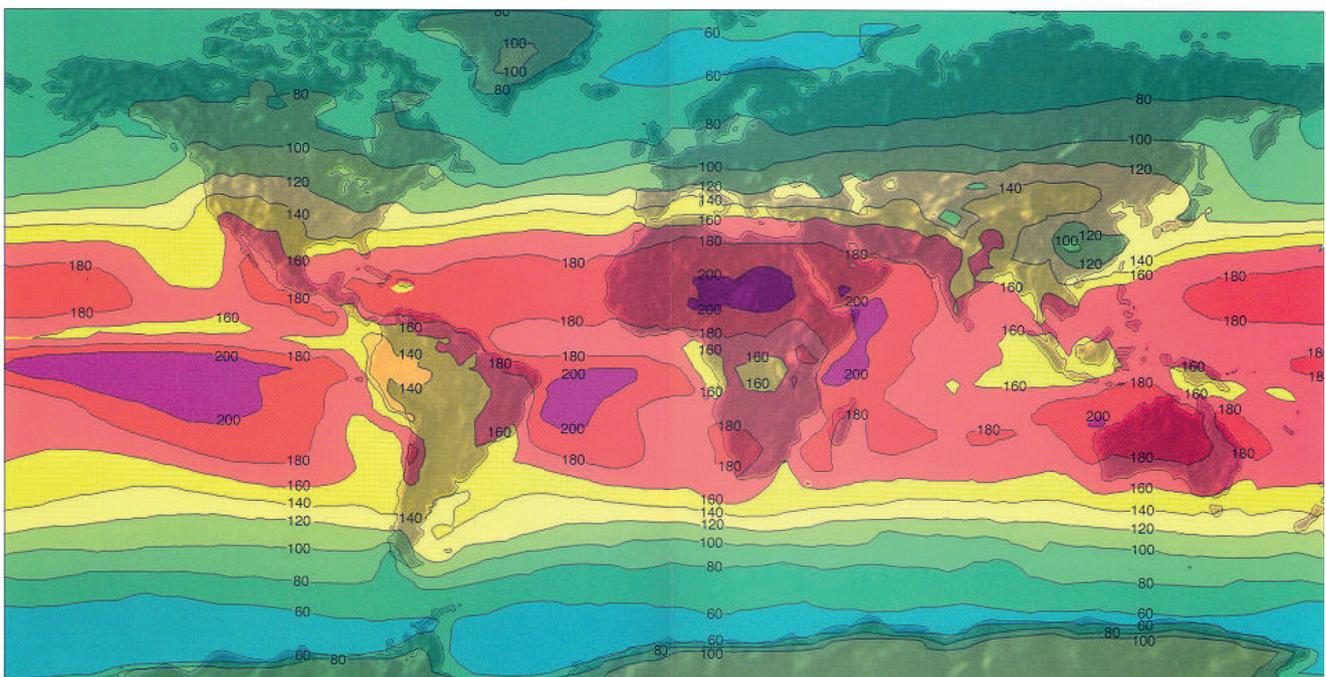
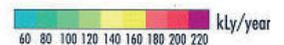
The durability of any plastic materials in outdoor applications mainly depends on the resistance of the construction against ultraviolet radiation. Without effective UV-protection the physical properties of any plastic materials change rather quickly during exposure to sunlight and the product will lose the desired characteristics.

Lenzing Jacketing is especially UV-protected. We cooperate with institutes who are worldwide leading in the field of UV-stabilisation of plastic materials. The Lenzing Jacketing system can be used for numerous years even in regions with glaring sunlight such as Australia, the Middle East or tropical areas. The global radiation that reaches the ground, depends on the geographic latitude, the average cloud cover and the humidity. Take a look at the map to see the level of average global radiation in your area. The UV-resistance of Lenzing Jacketing is constantly tested with Weather-O-Meter equipment. The samples are exposed to simulated sunlight for at least 15,000 hours, which equals estimated 15 years of outdoor application in an area with 100 kLangley/year.



kLangley World Map

1 kLangley = 1 kcal/cm² = 41.84 NJ/m²
 1 kLangley/year = 1.33 W/ m²





Installation

As a matter of fact the Lenzing Jacketing system is very easy to install. Insulation contractors only need a few basic tools on the construction site to do all necessary tasks.

Step 1

A very useful tool is the “cutting table”. The workman measures the circumference of the pipe, to be clad and cuts the Jacketing at the desired length.



Step 2

The jacketing is wrapped around the pipe or attached on the boiler, air duct etc. and may easily be fixed on the insulation with a customary tacker or with plastic rivets. Special application tools for piercing and fixing of the rivets are available.



Step 3

Finally all joints have to be sealed with adhesive tapes which are made of the same material as the jacketing itself. Installed properly these tapes guarantee 100% water tightness and excellent vapour barrier characteristics of the jacketing.



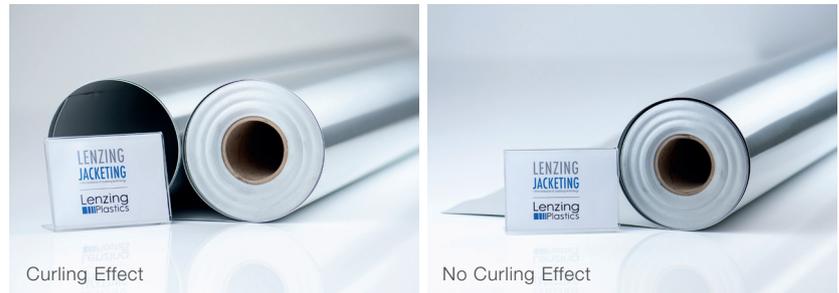
(For detailed descriptions about handling and installation please refer to the Lenzing Jacketing user manual.)

Various fittings for pipes, like elbows, tees, etc. enable easy installation. Special Lenzing Jacketing types for the common production of fittings are available as well.





Standard types



Type	Curling Effect	Thickness	Temp. Range	Tensile Strength	Puncture Resistance d = 0.8 mm	Puncture Resistance d = 30 mm	WVTR Water Vapour Permeability	UV-Light Resistance Testing
		mm	°C	N/15 mm	N	N/15 mm	g/m ² /24h	
524	Yes	0.35	-25 to +75	250 - 290	28	116	< 0.03	ISO 4892
528	No							
570	Yes	0.23	-25 to +75	175 - 200	23	87	< 0.03	ISO 4892
573	No							
632	No	0.22	-40 to +120	970 - 1,200	45	170	< 0.03	ISO 4892
424	Yes	0.33	-25 to +80	290 - 300	27	125	< 0.06	ISO 4892
428	No							

FIRE TESTING

Type	LOI %/O2	DIN 4102	BS 476 Part 6&7	UL 94 V	ASTM E84 -10	EN 13501-1 (SBI-Test)
524	35.5	B1	Class 0	Class 1	10/50	B-s2-d0
528						
570	35.5	-	Class 0	-	-	-
573						
632	40.0	-	-	-	0/5	-
424	29.0	-	Class 0	-	-	-
428						

Chemical resistance

The surface of Lenzing Jacketing has a high chemical resistance. See following table or ask us for more detailed specifications

Acids	Acetic acid (all concentrations)	resistant	Chlorinated hydrocarbons	Carbon tetrachloride	partially resistant
	50% formic acid	resistant		Chlorinated biphenyls	partially resistant
	10% hydrochloric acid	resistant		Chloroform	resistant
	30% hydrochloric acid	partially resistant		Trichloroethylene	resistant
	10% and 35% hydrofluoric acid	resistant			
	10% nitric acid	resistant	Esters	Ethyl acetate	resistant
	65% and 100% nitric acid	not resistant	Hydrocarbons	Aliphatic hydrocarbons	resistant
	30% and 85% phosphoric acid	resistant		Benzene	resistant
	20% sulphuric acid partially	resistant		Gasoline (petrol)	resistant
	sulphure dioxide gas, dry	resistant		Mineral oils	resistant
80% and above sulphuric acid	not resistant	Toluene		resistant	
		Xylene	resistant		
Alehydes	Acetaldehyde	resistant	Miscellaneous substances	Chlorine	resistant
	Formaldehyde	resistant		Hydrogen peroxide	resistant
Alcohols	Benzyl alcohol	partially resistant		Oxygen	resistant
	Cyclohexanol	resistant		Water*	resistant
	Ethyl alcohol	resistant		Acetone	resistant
	Glycerine	resistant		Diethylether	resistant
	Glycol	resistant		Nitrobenzene	not resistant
	Isopropyl alcohol	resistant	Phenol	not resistant	
	Methyl alcohol	resistant			
Aqueous alkaline solutions	Ammonium hydroxide	not resistant	Salt solutions	Alkaline carbonates	resistant
	Calcium hydroxide	partially resistant		Bichromates	resistant
	Sodium hydroxide	not resistant		Cyanides	resistant
		Fluorides		resistant	