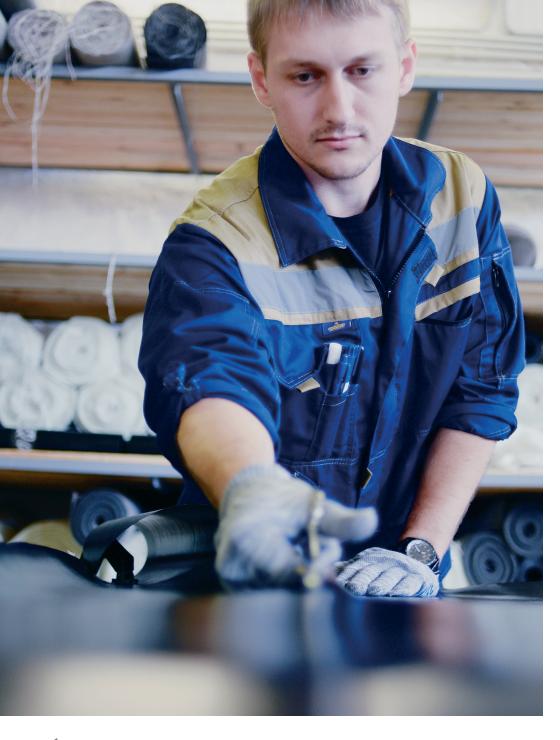


Thermal insulating jackets for food products

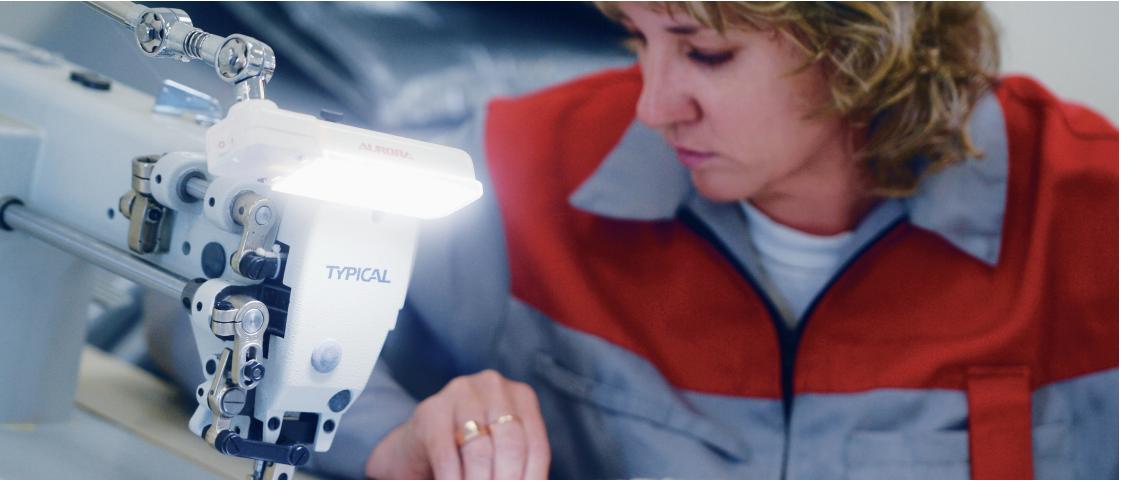
Powered by **Powerz** group







Powerz® company is an innovative leader in the field of engineering and production of fabric expansion joints and quickly removable thermal insulation





#### Market leader

The innovative German company Powerz® is the undisputed market leader in the field of engineering and production of quickly removable thermal insulation.Our company is one of the few in Europe covering the end-to-end modern production of flexible and removable thermal insulation products.



#### **Modern production**

The total production area is 60 000 m<sup>2</sup>. The technical processes in our workshops have been modelled on world-wide best practice. The company has its own design and engineering department, cutting complex and the best quality equipment.



#### **Quality and management**

All materials used in production are certified and have passed strict testing procedures. Our production complies with international quality standards and has all the necessary licenses and permits. Our quality management system is certified to international standard ISO 9001.

## POWERZ® THERMAL INSULATING JACKETS: APPLICATION AREAS

Thermal jackets for europallets or roll containers are designed to maintain the product temperature within the whole transportation chain. Their main task is to keep the inherent temperature of the transported goods regardless of the current ambient air temperature. Our thermal jackets allow the simultaneous transportation of the goods with different temperature sensitivity or their joint storage:

Where previously a separate refrigerator for each temperature regime was required, using our thermal jackets allows the combined carriage of frozen goods (-18 °C), chilled meat and fish (+2 °C), fruit and vegetables (+6 °C), bananas and tropical fruit (+15 °C), as well as dry products (+20 °C). This means that transportation costs can be reduced to a minimum.











$$-18^{\circ}C$$

 $+2^{\circ}C$ 



+15 °C

+20 °C

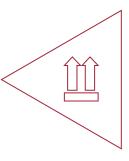
deep frozen products

meat and fish

fruits and vegetables

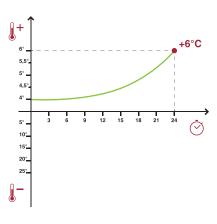
bananas and tropical fruit

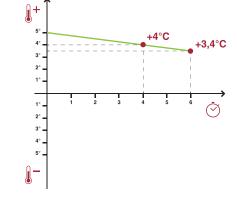
dry products

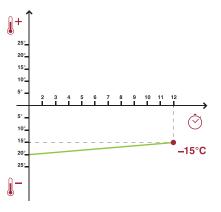


## Temperature maintenance schedules inside Powerz® thermal insulating jackets

Working together with leading retailers, our experts ran tests for different operating conditions of chilled and frozen products, as a result of which the best possible materials with a low coefficient of thermal conductivity have been selected for the insulating elements.

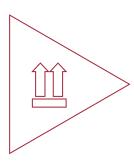






Inside — chilled meat, outside — warm (+20 °C)

Inside — chilled meat, outside — cold (-20 °C) Inside — frozen fish, outside — warm (+20 °C)

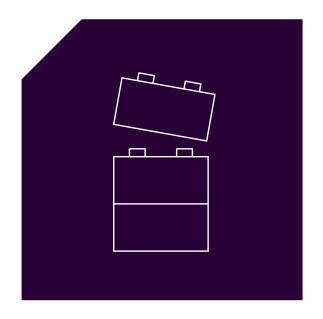


## POWERZ® TECHNICAL FEATURES

In order to transport the goods of different heights we designed a special thermal jacket with manually adjustable height.

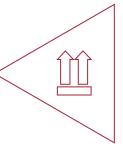
This allows using the same insulating jacket for all goods.







Due to high strength of outer coating layer Powerz® thermal insulating jackets are successfully operated within their whole service life (more than 5 years)



The major feature of Powerz<sup>®</sup> insulating jackets is the using of modern materials with specified mechanical properties.

### General requirements:



constant thermal conductivity under different temperature and humidity conditions



environment-friendly, non-allergenic



mechanical strength of materials, high tear and wear resistance



surface and filling layer of thermal jacket prevent the generation of bacteria and microbes

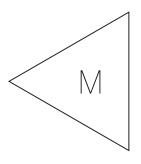


Based on these requirements Powerz® designed a product line in accordance with highest quality standards accepted by the worldwide retailers.

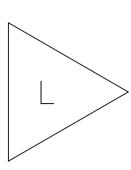
# POWERZ® FZ THERMAL INSULATING JACKET



FZ thermal insulating jacket: lightweight version



have a small weight



are used for shortdistance transportation of goods

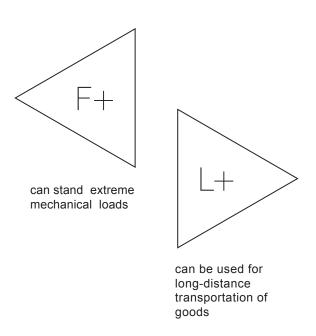


Using Powerz<sup>®</sup> insulating jackets minimizes temperature fluctuations during unloading, protects the goods against dust, dirt and environmental impact. Within short-term storage without appropriate storing conditions thermal insulating jackets maintain the set temperature of the product.

## POWERZ® SZ INSULATING JACKETS

SZ thermal insulating jackets for extreme service conditions

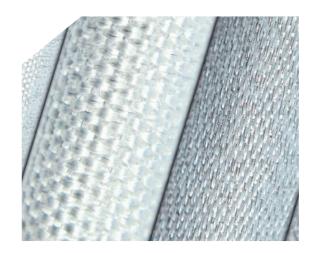


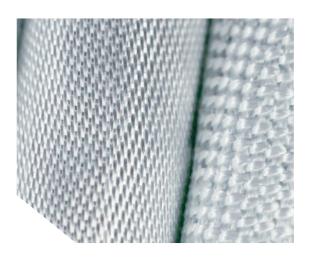




Using Powerz<sup>®</sup> insulating jackets minimizes temperature fluctuations during unloading, protects the goods against dust, dirt and environmental impact. Within short-term storage without appropriate storing conditions thermal insulating jackets maintain the set temperature of the product.

## **POWERZ® SPECIAL MATERIALS**







Thermal insulating layer ELATEX VK used for SZ or FZ jackets is specifically designed for such products and complies with strict operation requirements and branch standards. Made of updated polyester fibers this material has a close texture that prevents the deformation resulted from compression. This ensures the constant thermal properties of material during the whole service life.



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