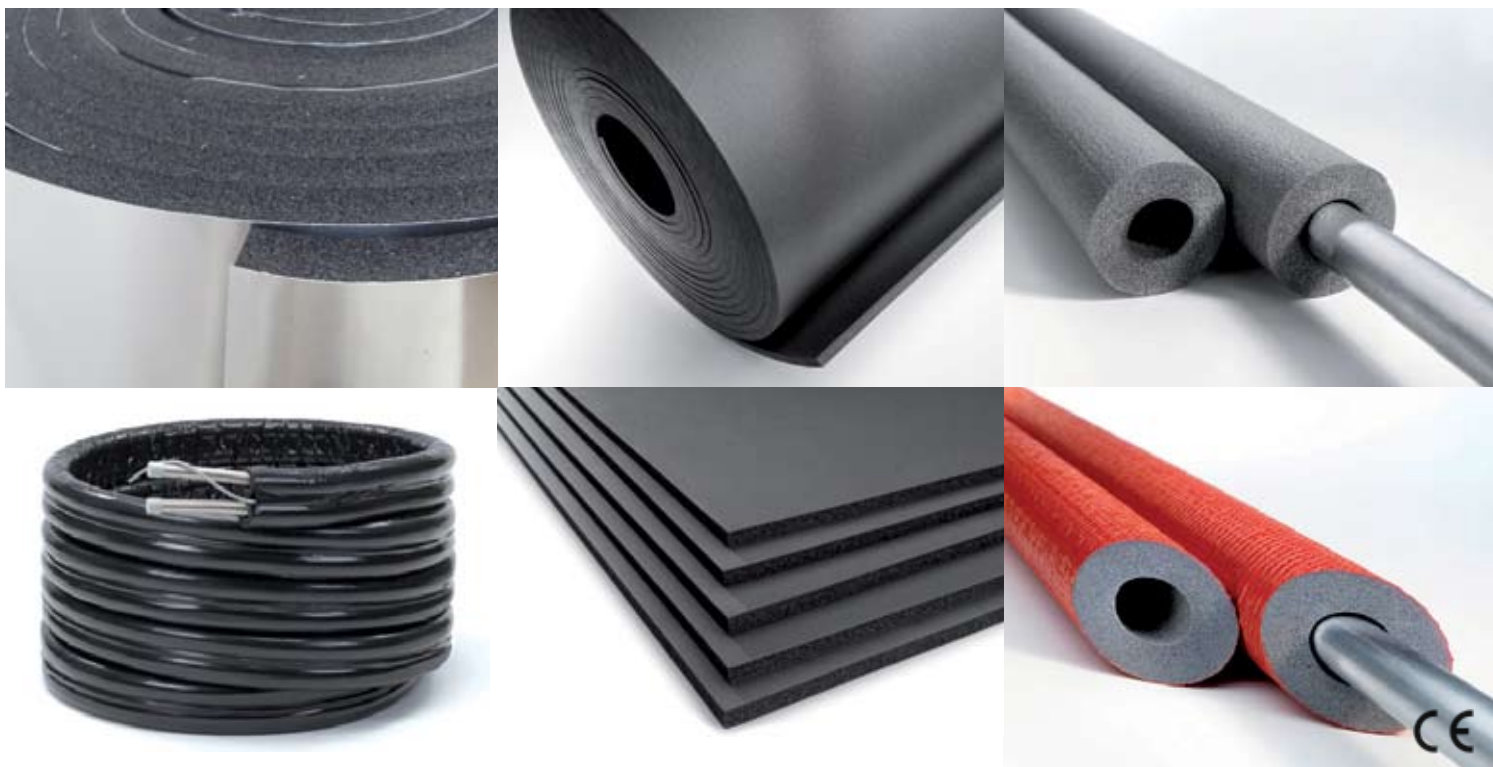
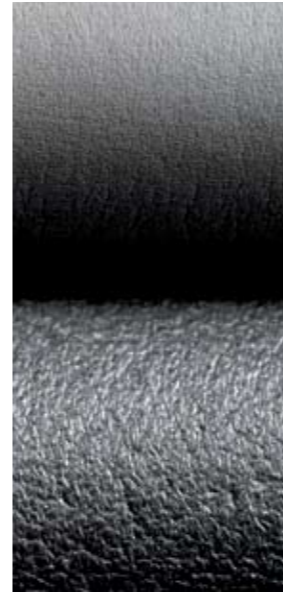




Installation Guide



insulation technologies



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NMC

All round comfort and security

People have always had a need for warmth and security. This is why fire meant survival for our ancestors. Today, in a time of scarcity of resources, hectic lifestyles and anonymity, we feel like a raw wind is blowing against us everyday. We are left with a longing for protection and safety.

The future of the earth, and therefore of humanity, basically depends on how prudently we use the remaining energy sources and what innovations are implemented in the area of energy production and use. Use of environmentally sound, energy-efficient building materials makes an important contribution to this. Intelligent materials and their environmentally sound production have the goal of dramatically extending the energy life cycle. In this way the world will continue to be habitable for us and our children.

For the past half-century, we at NMC have persistently sought to make our customers feel good with innovative products and highly developed technology. Our core skill lies in the development, production and international marketing of technical foams. We have mastered the required technological methods in order to process raw materials and combine them in a highly complex and precise production process. The resulting solutions offer protection and innovation, aesthetics and comfort or are simply just for having fun.

NMC offers security and comfort – in the area of expertise of building services engineering we create solutions, which, after being installed in many and diverse areas of application over decades, effectively separate or combine in the optimum ratio with each other cold, warmth, dampness and dryness, noise and quiet. Consequently, they make a considerable contribution to balancing out the basic elements of fire, water, earth and air in the living environment of people. Our insulation solutions for heating and plumbing, refrigeration and air conditioning, solar and high-temperature heating systems form a central product segment.

In order to meet the many and diverse needs in the insulation industry, we have two different product lines: CLIMAFLEX, the polyethylenebased expert concept for plumbing and heating applications, which stands out due to its low acquisition price and polyvalent usage, and the synthetic rubber INSULTUBE® professional concept with specific and reliable solutions for all application areas.

NMC – creates security through technology.



CLIMAFLEX®

The expert concept

If you expect high dimensional stability and quality, an optimum cost/performance ratio and simple installation from insulation, then polyethylene-based CLIMAFLEX® is the right choice.

CLIMAFLEX®, the expert concept for perfect plumbing and heating pipe insulation, made of CFC-free compact and closed-cell polyethylene foam, is resistant to age and is very easy to install. The variety of products and forms opens up unforeseen possibilities, in such a way that complex solutions also become feasible. With its national and international inspection certificates, CLIMAFLEX® is the ideal material for plumbing insulation.

Not only cost effectiveness, but also environmental aspects are the focal point of CLIMAFLEX®. If the heating and hot water pipes in a detached house are insulated with CLIMAFLEX®, under realistic conditions, 1.21 litres of fuel oil can be saved per square metre of living space over a year. In a detached house with 170 m² of living space as much as 200 litres of fuel oil can be saved, and consequently valuable energy. At a price per litre of 0.65 euros, this results in an annual potential saving of over 130 euros – a significant contribution to reducing CO₂ emissions and therefore to protecting the environment. Just this one measure could prevent 562 kilograms of CO₂ being released into the atmosphere each year. Pipe insulation is therefore not an expense, but rather an investment in our future.

The following pages give you an overview of the multitude of variations and application areas of CLIMAFLEX®: from the timesaving CLIMAFLEX® XT pipe insulation with self-adhesive closing system to CLIMAFLEX® STABIL, the insulation with protective coating against mechanical and climatic stress, and CLIMASOL® RDS for perfect dilatation.

CLIMAFLEX® – protects the environment and saves money.

- extremely economical
- easy to install
- resistant
- dimensionally stable



CLIMAFLEX® CLASSIC



Polyethylene-based closed-cell foam pipe insulation for heating and plumbing..

- $\lambda = 0.038 \text{ W/mK}$ at 40°C
- Fire classification in accordance with EN ISO 8497: D_{s1d0}
- Temperature range: 0°C to $+100^\circ\text{C}$ in accordance with EN 14707
- Density: approx. 30 kg/m^3
- Noise reduction

- Diameter range: 15 - 125mm
- Thickness: 6-30 mm

CLIMAFLEX® XT



Polyethylene pipe insulation for heating and plumbing, equipped with two self-adhesive strips, whose special glue guarantees fast and durable installation. Simply peel off the protection film, press down and it's done.

- $\lambda = 0.038 \text{ W/mK}$ at 40°C
- Fire classification in accordance with EN ISO 8497: D_{s1d0}
- Temperature range: -40°C to $+85^\circ\text{C}$
- Density: approx. 30 kg/m^3
- Up to 50% time saving due to reliable closing system
- Noise reduction

- Diameter range: 15 - 125mm
- Thickness: 6-30 mm

CLIMAFLEX® STABIL RED



The focal point of CLIMAFLEX® STABIL, except for the excellent product quality of CLIMAFLEX®, is its special PE protective coating. This prevents external mechanical damage and effectively protects against dampness. In short, excellent quality as well as clean and secure installation.

- $\lambda = 0.038 \text{ W/mK}$ at 40°C
- Fire classification in accordance with EN ISO 8497: E
- Temperature range: 0°C to $+100^\circ\text{C}$ in accordance with EN 14707
- Density: approx. 30 kg/m^3
- Hard-wearing against mechanical stress and dampness
- Noise reduction

- Diameter range: 15 - 125mm
- Thickness: 6-30 mm

CLIMAFLEX® STABIL BLUE



The focal point of CLIMAFLEX® STABIL, except for the excellent product quality of CLIMAFLEX®, is its special PE protective coating. This prevents external mechanical damage and effectively protects against dampness. In short, excellent quality as well as clean and secure installation.

- $\lambda = 0.038 \text{ W/mK}$ at 40°C
- Fire classification in accordance with EN ISO 8497: E
- Temperature range: 0°C to $+100^\circ\text{C}$ in accordance with EN 14707
- Density: approx. 30 kg/m^3
- Hard-wearing against mechanical stress and dampness
- Noise reduction

- Diameter range: 15 - 125mm
- Thickness: 6-30 mm

CLIMAFLEX® STABIL RED/ BLUE 10m



The focal point of CLIMAFLEX® STABIL, except for the excellent product quality of CLIMAFLEX®, is its special PE protective coating. This prevents external mechanical damage and effectively protects against dampness. In short, excellent quality as well as clean and secure installation.

- $\lambda = 0.038 \text{ W/mK}$ at 40°C
- Fire classification in accordance with EN ISO 8497: E
- Temperature range: 0°C to $+100^\circ\text{C}$ in accordance with EN 14707
- Density: approx. 30 kg/m^3
- Hard-wearing against mechanical stress and dampness
- Noise reduction

- Diameter range: 15 - 125mm
- Thickness: 6-30 mm

CLIMAFLEX STABIL - WHITE



Climaflex Stabil-White: extruded polyethylene insulation covered by white PE skin. Climaflex Stabil-White can be used in heating and air-conditioning systems. The insulation is produced in 200m-650m pieces. Additionally, there are 1m divisions printed on the surface which facilitate measuring suitable length of the insulation.

- $\lambda = 0,040 \text{ W/mK}$ at 40°C zgodnie z EN ISO 8497
- Fire classification in accordance with z PN-EN 13501-1: E
- Temperature range: 0°C do $+100^\circ\text{C}$, zgodnie z EN 14707

- Diameter range: 6mm
- Thickness: 6 - 22mm



CLIMAFLEX® ROLL/ CLIMAFLEX® ROLL XT



Closed-cell and cross-linked polyethylene foam insulation sheets for insulation of air ducts, tanks or large pipes.

- $\lambda = 0,043 \text{ W/mK}$ at 40°C
- Fire classification: E
- Temperature range 0°C do $+100^\circ\text{C}$
- Density: approx. 30 kg/m^3
- Accurate installation
- Thickness: 10 - 20mm

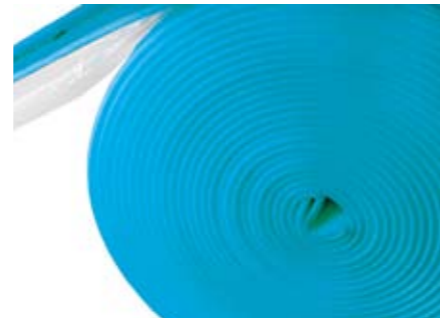
CLIMAFLEX® LS



Flexible polyethylene hose for insulation of sewage systems. CLIMAFLEX® LS effectively and durably protects against structureborne noise transfer, condensation and corrosion.

- Damping of structure-borne noise
- Diameter range: 15 - 125mm
- Thickness: 5mm

CLIMASOL® RDS/ self-adhesive



Expansion edge-strip made of PE foam. Protects the peripheral surface of the floor.

- Thickness: 8mm / 150mm / 25mm

ACCESSORIES

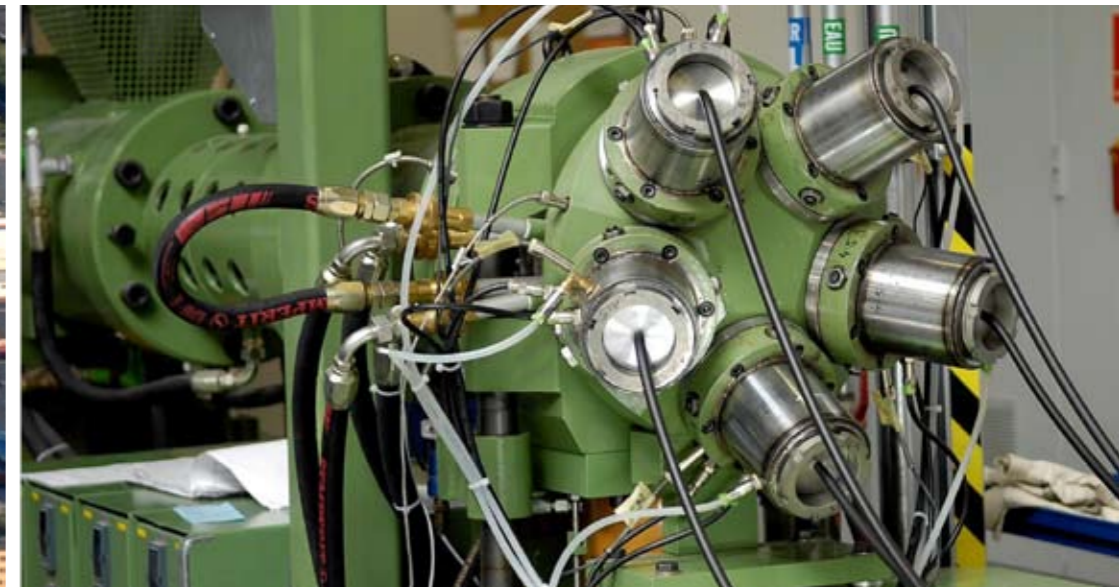


1. NMC-FIX Adhesive
2. CLIMAFLEX PVC tape
3. Tool box
4. Self adhesive CLIMAFLEX foam tape
5. NMC Gluemaster

APPLICATION AREAS

	Heating pipes (except for flooring)	Waste pipes	Hot and cold water pipes (except for flooring)	Ventilation pipes	Large pipes	Pipes without specifications
CLIMAFLEX®	++		++			+
CLIMAFLEX® XT	++		++			+
CLIMAFLEX® ROLL	+	+	+	+	++	+
CLIMAFLEX® STABIL	++					
CLIMAFLEX® LS		++			+	
CLIMAFLEX® STABIL for waste pipes		++			+	
CLIMAFLEX® protector						++

- + Possible application area
- ++ Ideal application area
- * XT - self-adhesive material



INSUL-TUBE®

The professional concept

If high elasticity and extreme cold or extreme heat resistance is required from insulation, then synthetic rubber NMC INSUL-TUBE® is the right choice.

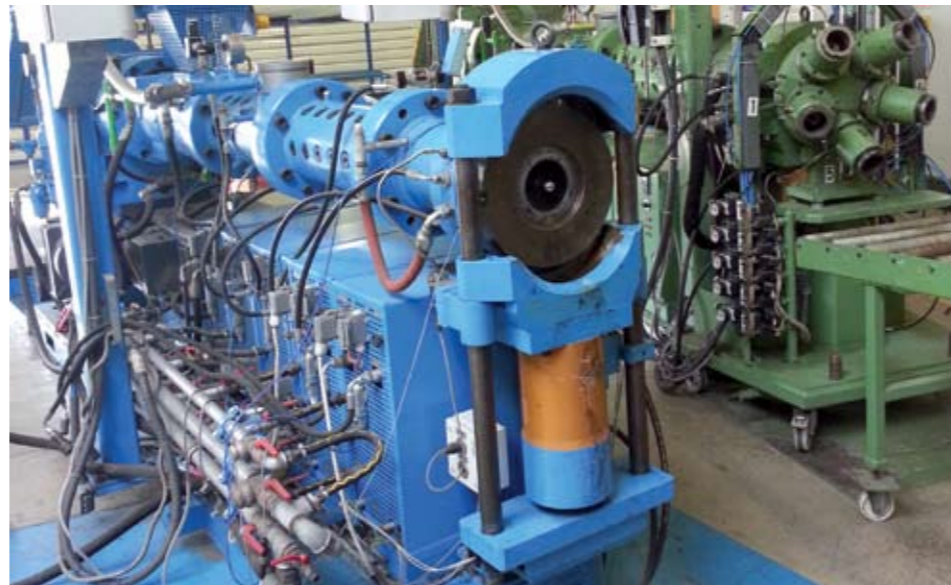
INSUL-TUBE®, the professional concept in our insulation range, made of synthetic, closed-cell rubber, saves time during installation, always fits perfectly and meets the demands of professionals. This is more important in domestic, plant and industrial construction, where the greatest flexibility and a large variety of products are of central importance. INSUL-TUBE® has low heat conductivity in conjunction with high water vapour diffusion resistance, which essentially increases the energy efficiency and durability of the insulated constructions. In addition, INSUL-TUBE® meets the high national standards for fire performance and of course has the required inspection certificates.

Besides the usual plumbing and heating application areas, INSUL-TUBE® provides professional solutions for refrigeration and air conditioning and is excellent for use in the solar and high temperature sector. At temperatures beyond 100 degrees, INSUL-TUBE® HiTemp has outstanding insulation values. Even in extreme cold, at temperatures down to minus 40 degrees Celsius, the highly elastic INSUL-TUBE® does an excellent job.

Get an overview of the special application areas and options of INSUL-TUBE®: from the off-the-peg INSUL-TUBE® with various installation options, to INSUL-TUBE COIL, the hose option that minimises cutting, and the INSUL® ROLL and INSUL® sheet, the rolled or sheet insulation for large-area and specifically shaped components..

INSUL-TUBE® – highly professional, reliable and fits perfectly.

- resistant to high and low temperatures
- fast and easy to install



INSUL-TUBE®/ INSUL-TUBE® COIL



Flexible rubber pipe insulation made of closed-cell foam for refrigeration and air conditioning systems. The closed-cell structure and good water vapour diffusion resistance of the material prevent condensation from forming on cold pipes and guarantee durable energy savings. The product can also be rolled up in a practical dispenser.

- $\lambda = 0.034 \text{ W/mK}$ at 0°C
- $\mu > 7000$
- Fire classification: BL-s3 d0
- Temperature range: -30°C to $+100^\circ\text{C}$
- Density: 50 kg/m^3 +/- 10%
- Diameter range: 6 - 160mm
- Thickness: 6 - 50mm

INSUL CLIP



Insulation clamp for pipe systems with retaining (metal clamp). Insul Clip can be used in cool water systems, air conditioning and cooling systems in order to maintain the continuity of the insulation at the point of suspension. The product protects against condensation and the formation of thermal bridges.

- Fire classification: B2
- Temperature range: -50°C to $+105^\circ\text{C}$
- Diameter range: 10 - 219mm
- Thickness: 13 - 50mm

INSUL-TUBE® HiTemp/ INSUL-TUBE® COIL HiTemp



Flexible rubber pipe insulation for use in areas with application temperatures of up to 150°C or for insulation of solar heating systems. The product can also be rolled up in a practical dispenser.

- $\lambda = 0.036 \text{ W/mK}$ at 0°C
- Fire classification: fire reaction E
- Temperature range: 0°C to $+150^\circ\text{C}$ max 175°C
- Density: $45 - 80 \text{ kg/m}^3$
- Designed for high-temperature solar heating systems
- Diameter range: 15 - 42mm
- Thickness: 13 - 19mm

INSUL® ROLL/ INSUL® ROLL XT



Flexible closed-cell rubber rolled insulation for saving energy in refrigeration and air conditioning technology offers the same advantages against the formation of condensation as INSUL-TUBE® - pipe insulation. INSUL® ROLL XT, with additional high-strength special self-adhesive and grid fortification, for fast and therefore inexpensive installation.

- $\lambda = 0.036 \text{ W/mK}$ at 0°C
- $\mu > 7000$
- Fire classification: B s3 d0
- Temperature range: -30°C to $+100^\circ\text{C}$
- Density: 50 kg/m^3 +/- 10%
- Thickness: 3 - 50mm

INSUL® SHEET/ INSUL® SHEET XT



2m long flexible rubber insulation sheets for insulation of refrigeration and air conditioning systems with the same technical properties as INSUL® ROLL.

INSUL® SHEET XT, with additional high strength special self-adhesive and grid fortification, for fast and therefore inexpensive installation.

- $\lambda = 0.036 \text{ W/mK}$ at 0°C
- $\mu > 7000$
- Fire classification: B s3 d0
- Temperature range: -30°C to $+100^\circ\text{C}$
- Density: 50 kg/m^3 +/- 10%
- Thickness: 6 - 32mm

INSUL-TUBE SOLAR



It is a perfect solution for solar systems. Two corrugated made of steel pipes pre-insulated by Insul-Tube HiTemp. The product is covered by a composite UV resistant cover. Additionally, there is a wire to connect the driver and the device.

- Temperature range: 0°C - 150°C
- UV resistance: excellent due to ISO 4892
- Diameter range: 16 - 20mm
- Thickness: 13mm



INSUL-TUBE COVER SOLUTION



Insul Tube Cover Solution is an insulation based on high quality rubber, produced according to NMC technology. The product is covered by a composite ALU cover which is resistant to UV radiation and can be installed outside the buildings. Insul Tube Cover Solution is an excellent substitution for traditional insulation techniques. What is more, it is a perfect protection against vapour condensation.

- $\lambda = 0.034 \text{ W/mK at } 0^\circ\text{C}$
- Fire classification: D_{s3}d0
- Temperature range: -30°C to +100°C
- Density: 50 kg/m³ +/- 10%
- 1m pieces
- Diameter range: 6 - 160mm
- Thickness: 13 - 50mm

INSUL ROLL ALU/ INSUL ROLL XT ALU



Flexible closed-cell rubber rolled insulation for saving energy in refrigeration and air conditioning technology. The closed-cell structure and good water vapour diffusion resistance of the material prevent condensation on a cold pipes and guarantee durable energy savings. The product is covered by ALU cover which protects against damages. XT version with special self-adhesive enables fast and therefore inexpensive installation.

- $\lambda = 0.036 \text{ W/mK at } 0^\circ\text{C}$
- Fire classification: D_{s3}d0
- Temperature range: -30°C to +100°C
- Density: 50 kg/m³ +/- 10%
- Thickness: 6 - 50mm

INSUL-ROLL COVER SOLUTION/ INSUL-ROLL XT COVER SOLUTION



Flexible closed-cell rubber rolled insulation for saving energy in refrigeration and air conditioning technology. The closed-cell structure and good water vapour diffusion resistance of the material prevent condensation on a cold pipes and guarantee durable energy savings. The product is covered by composite ALU cover which is resistant to UV radiation and can be installed outside the buildings. XT version with special self-adhesive enables fast and therefore inexpensive installation.

- $\lambda = 0.036 \text{ W/mK at } 0^\circ\text{C}$
- Fire classification: D s3 d0
- Temperature range: -30°C to +100°C
- Density: 50 kg/m³ +/- 10%
- Thickness: 6 - 50mm

WYPOSAŻENIE



1. INSUL[®] slitting knife
2. INSUL[®] paint
3. Self adhesive insul foam tape
4. INSUL[®] adhesive
5. PVC tape

APPLICATION AREAS

	Pipes for air conditioning and refrigeration	Surfaces and large pipes for air conditioning and refrigeration	Pipes for plumbing and heating	Surfaces and large pipes for plumbing and heating	Pipes for high temperature applications
INSUL-TUBE [®]	++		+		
INSUL COIL	++		+		
HT INSUL-TUBE [®]					++
INSUL ROLL/ INSUL ROLL XT	+	++	+	++	
INSUL SHEET [®] /INSUL SHEET [®] XT	+	++	+	++	
INSUL-TUBE COVER SOLUTION	++		+		
INSUL ROLL ALU/ INSUL ROLL XT ALU	+	++	+	++	
INSUL ROLL COVER SOLUTION/ INSUL ROLL XT COVER SOLUTION	+	++	+	++	

+ Possible application area
++ Ideal application area

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