

# The NEUMO Thermal Insulation System

ECO- FRIENDLY  
RESOURCE- EFFICIENT

## NEUMO

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The NEUMO Ehrenberg Group is one of the world's largest privately-owned manufacturers and distributors of stainless steel products and metal cutting tools. Founded in Germany in 1947 by the late Senator Henry Ehrenberg, today it is a diverse, multi-national organization with an impressive track record based on the extensive knowledge and experience accumulated by the Group's companies – NEUMO, AWH and EGMO – in three core areas: stainless steel flow technologies, tooling and stainless steel trading.

Basotec is an insulation product made from melamine resin foam. Thanks to its unique properties, Basotec combines high performances with a long-lasting insulation solution.

- Flame resistance
- High temperature resistance
- Constant physical properties over a wide temperature range
- Abrasiveness
- Low weight
- Good thermal insulation property
- Flexibility at very low temperature
- High sound absorption capacity

## Advantage of BASOTEC®

### Various Processability

Be able to make various thickness for the requested insulation properties.

Also produce insulation foam for Fittings like Elbow, Tee, Valve using 3D CNC Machine.

### Fire-Resistance

The high nitrogen contents of the resin is responsible for the extremely flame resistant property of the foam without the need to use fire retardants. BASOTEC® is a thermoset, and thus, in the event of a fire, the material does not melt or produce burning droplets when it comes into contact with flames.

### Thermal Insulation

BASOTEC® offers good thermal insulation that is reliable even at high temperatures over a prolonged period. It provides low thermal conductivity of less than  $0.035 \text{ W/(m}\cdot\text{K)}$ , so energy losses can be reduced in, for example, hot water tanks and solar water heaters.

### Light Weight

BASOTEC®'s open-cell foam structure contributes to its low density of  $9 \text{ g/l}$ . The light weight grade, BASOTEC® UL, weighs even 30% less fulfilling the rising demand of lower weight and emissions.

## General Insulation Specifications

Foam Material:  
Wall Thickness (WT):  
Service Temperature Max:  
Temperature Min:

## CLEAN-ROOM BIO SERIES 879

Melamine - BASF Basotect®  
25.4mm  
176°C  
-40°C

### FOAM:

Service Temperatures	-40°C to 176°C	ASTM C-1410
Density lb/ft <sup>3</sup>	0.56 ± 0.06	ASTM D-3574
Thermal Conductivity (k)	0.25 @ 24°C	ASTM C-177
Tensile Strength (lb/ft <sup>2</sup> )	14	ASTM D-3574
Elongation Max. %	30	ASTM D-3574
Flame & Smoke Index (Self-extinguishing)	25/50	ASTM E-84
Oxygen Index, min %	33	ASTM D-2863
Smoke Toxicity	PASS	ASTM E-800
	PASS	ASTM E-662
Leachable Chlorides (Thermal Insulations)	PASS	ASTM C-871
Flammability Rating	V-0	UL-94

### PVC JACKET:

Ambient Temperature Range	-17°C to 60°C	
Thickness	0.5mm	
Tensile Strength lb/in <sup>2</sup>	6500	ASTM D-3574
Flame & Smoke Index	25/50	ASTM E-84

\* Standard sizes 6mm - 300mm

\* Permanently laminated White High Gloss PVC jacketed insulation for piping, tubing, vessels & fittings.

\* Connected & Sealed with integral self-sealing adhesive strip.

\* Additional sizes on request

## Tube (Straight)

### MATERIAL INFORMATION

Available with Cover: PVC, thick.: 0.5mm  
 Insulation: Melamine foam (BASOTEC® G+)  
 Length: Melamine: 1.25 mt  
 PVC cover: 1.00 mt



### SPECIFICATION OF TUBE

MELAMINE I.D.		I.D TOLERANCE	LENGTH TOLERANCE
in	mm		
1/4	6.35	+1	+/- 1
3/8	9.53	+1	+/- 1
1/2	12.7	+1	+/- 1
3/4	19.05	+1	+/- 1
1	25.4	+1	+/- 1
1.1/2	38.1	+1	+/- 1
2	50.8	+1	+/- 1
2.1/2	63.5	+1	+/- 1
3	76.2	+1	+/- 1
4	101.6	+1	+/- 1
6	152.4	+1	+/- 1

### STANDARD THICKNESS (mm) : 25, 40, 50, 75\*

The melamine foam inner diameter and wall thickness are adjustable according to customer request.

\* 75mm available on demand

## 90° Elbows

### MATERIAL INFORMATION

Available with Cover: PVC, thick.: 0.5 mm  
Insulation: Melamine foam (BASOTEC® G+)



### SPECIFICATION OF 90° ELBOWS

MELAMINE I.D		I.D TOLERANCE	LENGTH TOLERANCE
in	mm	mm	mm
1/4	6.35	+1	+/- 1
3/8	9.53	+1	+/- 1
1/2	12.7	+1	+/- 1
3/4	19.05	+1	+/- 1
1	25.4	+1	+/- 1
1.1/2	38.1	+1	+/- 1
2	50.8	+1	+/- 1
2.1/2	63.5	+1	+/- 1
3	76.2	+1	+/- 1
4	101.6	+1	+/- 1
6	152.4	+1	+/- 1

### STANDARD THICKNESS (mm) : 25, 40, 50, 75\*

The melamine foam inner diameter and wall thickness are adjustable according to customer request.

\* 75mm available on demand

## 45° Elbows

### MATERIAL INFORMATION

Available with Cover: PVC, thick.: 0.5 mm  
Insulation: Melamine foam (BASOTEC® G+)



### SPECIFICATION OF 45° ELBOWS

MELAMINE I.D		I.D TOLERANCE	LENGTH TOLERANCE
in	mm	mm	mm
1/4	6.35	+1	+/- 1
3/8	9.53	+1	+/- 1
1/2	12.7	+1	+/- 1
3/4	19.05	+1	+/- 1
1	25.4	+1	+/- 1
1.1/2	38.1	+1	+/- 1
2	50.8	+1	+/- 1
2.1/2	63.5	+1	+/- 1
3	76.2	+1	+/- 1
4	101.6	+1	+/- 1
6	152.4	+1	+/- 1

### STANDARD THICKNESS (mm) : 25, 40, 50, 75\*

The melamine foam inner diameter and wall thickness are adjustable according to customer request.

\* 75mm available on demand

## Equal Tee

### MATERIAL INFORMATION

Available with Cover: PVC, thick.: 0.5 mm  
Insulation: Melamine foam (BASOTEC® G+)



### SPECIFICATION OF EQUAL TEE

MELAMINE I.D		I.D TOLERANCE	LENGTH TOLERANCE
in	mm	mm	mm
1/4	6.35	+1	+/- 1
3/8	9.53	+1	+/- 1
1/2	12.7	+1	+/- 1
3/4	19.05	+1	+/- 1
1	25.4	+1	+/- 1
1.1/2	38.1	+1	+/- 1
2	50.8	+1	+/- 1
2.1/2	63.5	+1	+/- 1
3	76.2	+1	+/- 1
4	101.6	+1	+/- 1
6	152.4	+1	+/- 1

### STANDARD THICKNESS (mm) : 25, 40, 50, 75\*

The melamine foam inner diameter and wall thickness are adjustable according to customer request.

\* 75mm available on demand

## Reducer Tee

### MATERIAL INFORMATION

Available with Cover: PVC, thick.: 0.5 mm  
Insulation: Melamine foam (BASOTEC® G+)



### SPECIFICATION OF REDUCER TEE

\* More sizes are available

MELAMINE I.D.		I.D TOLERANCE	LENGTH TOLERANCE
in	mm	mm	mm
3/8 x 1/4	9.53 / 6.35	+1	+/- 1
1/2 x 1/4	12.7 / 6.35	+1	+/- 1
1/2 x 3/8	12.7 / 9.53	+1	+/- 1
3/4 x 1/4	19.05 / 6.35	+1	+/- 1
3/4 x 3/8	19.05 / 9.53	+1	+/- 1
3/4 x 1/2	19.05 / 12.7	+1	+/- 1
1 x 1/4	25.4 / 6.35	+1	+/- 1
1 x 3/8	25.4 / 9.53	+1	+/- 1
1 x 1/2	25.4 / 12.7	+1	+/- 1
1 x 3/4	25.4 / 19.05	+1	+/- 1
1.1/2 x 1/2	38.1 / 12.7	+1	+/- 1
1.1/2 x 3/4	38.1 / 19.05	+1	+/- 1

### STANDARD THICKNESS (mm) : 25, 40, 50, 75\*

The melamine foam inner diameter and wall thickness are adjustable according to customer request.

\* 75mm available on demand

## Concentric Reducer

### MATERIAL INFORMATION

Available with Cover: PVC, thick.: 0.5 mm  
Insulation: Melamine foam (BASOTEC® G+)



### SPECIFICATION OF CONCENTRIC REDUCER

\* More sizes are available

	MELAMINE I.D		I.D TOLERANCE	LENGTH TOLERANCE
	in	mm		
3/8 x 1/4	9.53	6.35	+1	+/- 1
1/2 x 1/4	12.7	6.35	+1	+/- 1
1/2 x 3/8	12.7	9.53	+1	+/- 1
3/4 x 3/8	19.05	9.53	+1	+/- 1
3/4 x 1/2	19.05	12.7	+1	+/- 1
1 x 1/2	25.4	12.7	+1	+/- 1
1 x 3/4	25.4	19.05	+1	+/- 1
1.1/2 x 3/4	38.1	19.05	+1	+/- 1
1.1/2 x 1	38.1	25.4	+1	+/- 1
2 x 1	50.8	25.4	+1	+/- 1
2 x 1.1/2	50.8	38.1	+1	+/- 1
2.1/2 x 1.1/2	63.5	38.1	+1	+/- 1

### STANDARD THICKNESS (mm) : 25, 40, 50, 75\*

The melamine foam inner diameter and wall thickness are adjustable according to customer request.

\* 75mm available on demand

## Eccentric Reducer

### MATERIAL INFORMATION

Available with Cover: PVC, thick.: 0.5 mm  
Insulation: Melamine foam (BASOTEC® G+)



### SPECIFICATION OF ECCENTRIC REDUCER

\* More sizes are available

MELAMINE I.D		I.D TOLERANCE	LENGTH TOLERANCE
in	mm	mm	mm
3/8 x 1/4	9.53 / 6.35	+1	+/- 1
1/2 x 1/4	12.7 / 6.35	+1	+/- 1
1/2 x 3/8	12.7 / 9.53	+1	+/- 1
3/4 x 3/8	19.05 / 9.53	+1	+/- 1
3/4 x 1/2	19.05 / 12.7	+1	+/- 1
1 x 1/2	25.4 / 12.7	+1	+/- 1
1 x 3/4	25.4 / 19.05	+1	+/- 1
1.1/2 x 3/4	38.1 / 19.05	+1	+/- 1
1.1/2 x 1	38.1 / 25.4	+1	+/- 1
2 x 1	50.8 / 25.4	+1	+/- 1
2 x 1.1/2	50.8 / 38.1	+1	+/- 1
2.1/2 x 1.1/2	63.5 / 38.1	+1	+/- 1

### STANDARD THICKNESS (mm) : 25, 40, 50, 75\*

The melamine foam inner diameter and wall thickness are adjustable according to customer request.

\* 75mm available on demand

## Valve Covers

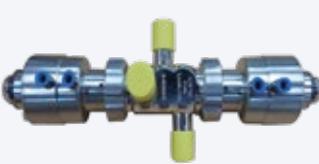
### MATERIAL INFORMATION

Available with Cover: PVC, thick.: 0.5 mm

Insulation: Melamine foam (BASOTECT® G+)



### BODY TYPE

Name		Valve	Insulation (Standard Thickness : 25mm)		
Valve	'B' type				
	'C' type				
	'H_L' type				
	'HUA' type				
	'HWA' type				
	'L' type				
	'T' type				

• Custom valve covers can be manufactured according to customer's drawings.

### STANDARD THICKNESS (mm) : 25, 40, 50, 75\*

The melamine foam inner diameter and wall thickness are adjustable according to customer request.

\* 75mm available on demand

PVC fitting covers with melamine foam inserts and accessories, which include elbows, tees/valves, end caps, mechanical line couplings, specialty fittings, white and indoor color jacketing.

## Applications

The PVC Fitting Cover System is used to insulate XA mechanical piping systems at fitting locations and provides a PVC jacketing for various pipe types.

## Benefits

Easy To Clean. Due to the smooth, high gloss finish on PVC Fittings, the product cleans easily with soap and water. This makes the system ideal for food and drug facilities.

## Low Cost Installation

Significant cost savings vs. conventional molded sections and mitered sections.

## Fast and Easy

At fitting locations, wrap the melamine insert around the pipe fitting, apply the PVC Cover over the insert and tack or tape in place.

# References of Pharma Insulation



Thermal  
Insulation  
Solution



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