

Products

**For safety, comfort
and flexibility**

Novelis OHLER® Flexible Tubes



Novelis

Novelis Your Specialist

Security, comfort and flexibility during your journey

When it comes to air and exhaust discharge systems, the European caravan and motorhome industry relies on innovative and favourably priced product solutions.

Close cooperation with leading manufacturers of gas and diesel heating systems is already producing remarkable product solutions in the very early stages of developing new heating devices.

With our products we set a benchmark in terms of quality and reliability!

Further details about our diverse range are set out clearly on the following pages.

Flexible Tubes

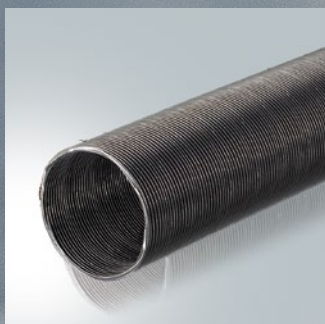
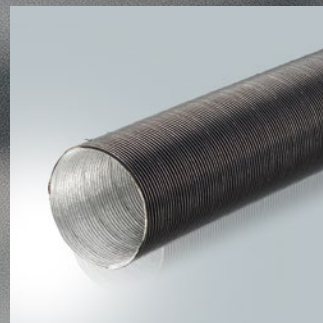
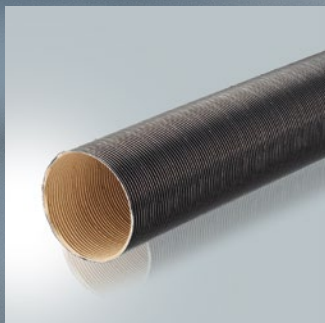
Page 6 – 17

Insulation Tubes

Page 18 – 23

Products for Custom Applications

Page 24 – 25



Caravans and Motorhomes

Our solutions travel world-wide

Security, comfort and flexibility during your journey

The European motorhome and caravan manufacturers as well as their suppliers and sales partners rely on OHLER® Flexible Tubes for circulation and distribution of air and exhaust gases. In these segments we have a close relationship with the leading manufacturers of petrol, diesel and liquid gas heating systems. We offer extensive know-how and a wide range of innovative solutions – many of them with production proven status.

Our core products in this area:

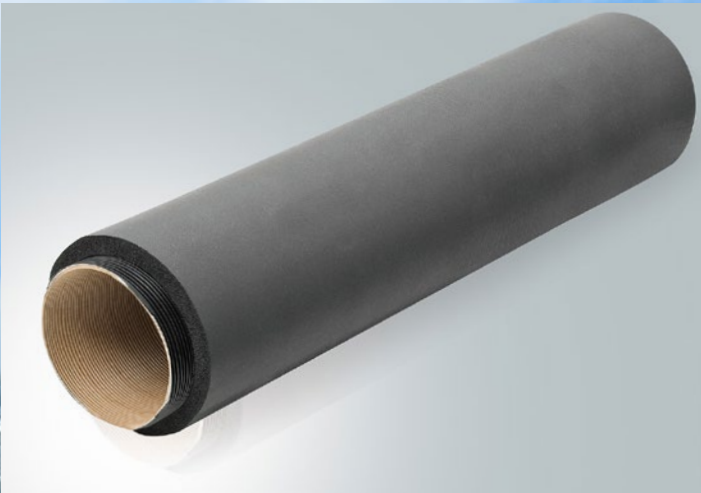
- Flexible tubes and hoses for air circulation and warm air distribution
- Flexible exhaust tubes for heating appliances, can be also supplied with sound absorbing characteristics
- Insulated and heat resistant twin tubes

With over 50 years experience and strong co-operations with all industry leading manufacturers, we gained excellent know-how of all solid production processes.

Our products set the industry standard for quality and reliability; consequently we give highest priorities to the following factors:

- outstanding product quality
- expert based development competence for each individual challenge
- optimal price-performance ratio
- high insulation properties for warm air tubes
- guaranteed on-time-delivery
- size accuracy according to customary industrial plastic components

In the future we will keep firmly to these principles as your trust is our driving force.



Flexible Tubes

Flexible Tubes for air ventilation OHLER FLEXROHR®



Brief description Colour Product/model	Application area	Tube structure	Colour
A-P-K black	Flexible tube to conduct combustion air in vehicle heating systems, resistant to sprayed water and oil	Aluminium Paper Plastic foil, black	Black
P-A-K black	Flexible tube to conduct combustion air in vehicle heating systems, resistant to sprayed water and oil	Paper Aluminium Plastic foil, black	Black
K-A-K black	Flexible tube for heating, ventilation and to conduct fresh air without the addition of aggressive fumes or solids that promote wear	Plastic foil, black Aluminium Plastic foil, black	Black



	Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance - at constant inner and outer temperature - at 20°C ambient temperature
	ID 45 – ID 100	In fixed lengths or in coils of up to 25 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 2 x ID	- 40° C to + 110° C + 150° C
	ID 70 – ID 90	In fixed lengths or in coils of up to 25 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 2 x ID	- 40° C to + 100° C + 140° C
	ID 60 – ID 90	In fixed lengths or in coils of up to 25 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 2 x ID	- 40° C to + 100° C + 120° C

Flexible Tubes

Flexible Tubes for warm air distribution
CARADUCT® and OHLER FLEXROHR®



Brief description Colour Product/model	Application area	Tube structure	Colour
CARADUCT® beige	Flexible tubes for warm air distribution with increased peak load resistance both at ID 60.5 and ID 70.5, as insulating duct to the exhaust tube AE 30 and AE 50	Aluminium Kraft paper Kraft paper	Beige
CARADUCT®-L beige	Flexible tubes for warm air distribution	Aluminium Kraft paper Kraft paper	Beige
OHLER FLEXROHR® A-P beige	Flexible tubes for warm air distribution	Aluminium Paper	Beige



	Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance - at constant inner and outer temperature - at 20°C ambient temperature
	ID 31 – ID 75	In fixed lengths or in coils of up to 20 m, ID 60.5 up to 30 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 1.5 x ID	- 40° C to + 110° C + 150° C
	ID 30, 31, 45 and 60.5	In fixed lengths or in coils of up to 20 m, ID 60.5 up to 30 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 1 x ID	- 40° C to + 110° C + 150° C
	ID 18	In fixed lengths or in coils of up to 20 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 1.5 x ID	- 40° C to + 110° C + 150° C

Flexible Tubes

Flexible Tubes for warm air distribution,
perforated / partially deformed CARADUCT®



Brief description Colour Product/model	Application area	Tube structure	Colour
CARADUCT® beige perforated	Flexible tubes with increased peak load resistance and outflow openings for distribution of warm air	Aluminium Kraft paper Kraft paper	Beige
CARADUCT®-L beige perforated	Flexible tubes with outflow openings for distribution of warm air	Aluminium Kraft paper Kraft paper	Beige
CARADUCT®-L beige partially deformed	Flexible tubes for distribution of warm air in confined installation space	Aluminium Kraft paper Kraft paper	Beige



	Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance - at constant inner and outer temperature - at 20°C ambient temperature
	ID 31 and ID 60.5	In fixed lengths or in coils of up to 20 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 2 x ID	- 40° C to + 110° C + 150° C
	ID 60.5	In fixed lengths or in coils of up to 20 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 2 x ID	- 40° C to + 110° C + 150° C
	ID 60.5, deformed to 44x76 mm, round ends	In fixed lengths	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 2 x ID	- 40° C to + 110° C + 150° C

Flexible Tubes

Flexible Stainless Steel Exhaust Tubes CORMIFLEX®



Brief description Colour Product/model	Application area	Tube structure	Colour
CORMIFLEX®, one layer, AE 30 and AE 50	Exhaust tube with increased density for vehicle and boat heating systems	Grooved folded spiral seam tube consisting of a stainless steel strip, wound, one layer	Stainless steel grey
CORMIFLEX®, one layer	Exhaust tube for vehicle and boat heating systems	Grooved folded spiral seam tube consisting of a stainless steel strip, wound, one layer	Stainless steel grey
CORMIFLEX®, two layer	Exhaust tube for vehicle and boat heating systems	Grooved folded spiral seam tube consisting of a stainless steel strip, wound, two layers	Stainless steel grey



	Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance - at constant inner and outer temperature - at 20°C ambient temperature
	ID 51.3 and ID 61.5	In fixed lengths of up to 3 m or in coils of up to 20 m	Non-combustible according to DIN 4102, Cl. A1	approx. 2 x ID	Up to + 300° C Up to + 350° C
	ID 22 - ID 100	In fixed lengths of up to 3 m or in coils up to ID 66: 20 m from ID 70: 10 m	Non-combustible according to DIN 4102, Cl. A1	approx. 1.5 - 2 x ID	Up to + 300° C Up to + 350° C
	ID 20 - ID 100	In fixed lengths of up to 3 m or in coils up to ID 66: 20 m from ID 70: 10 m	Non-combustible according to DIN 4102, Cl. A1	approx. 1.5 - 2 x ID	Up to + 300° C Up to + 350° C

Flexible Tubes

Flexible Aluminium Exhaust OHLER FLEXROHR®



Brief description Colour Product/model	Application area	Tube structure	Colour
A-A	Exhaust tube for vehicle and boat heating systems with low exhaust gas temperature	Aluminium wound, 3 layers	Silver
Al 6-layers	Exhaust tube with increased peak load resistance for vehicle and boat heating systems with low exhaust gas temperature	Aluminium wound, 6-layers	Silver



	Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance - at constant inner and outer temperature
	ID 22.2, ID 30	In fixed lengths or in coils up to 20 m	Non-combustible according to DIN 4102, Cl. A1; burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 1.5 x ID	Up to + 200° C
	ID 50.5	In fixed lengths or in coils up to 20 m	Non-combustible according to DIN 4102, Cl. A1	approx. 1.5 x ID	Up to + 200° C

Flexible Tubes

Flexible Exhaust Tubes as Twin Tube OHLER® Twin Tube



Brief description Colour Product/model	Application area	Tube structure	Colour
DR AE 30 or AE 50 / CARADUCT® beige	Insulated exhaust tube for roof cowl on the vehicle	CORMIFLEX® one layer CARADUCT® beige	Beige
DR Al 6-layer/ A-P-K black	Exhaust tube with increased peak load resistance incl. intake pipe for vehicle heating systems with low exhaust gas temperature	Al 6-layers A-P-K black	Black
DR A-A (SV) / A-P-K black	Exhaust tube incl. intake pipe for vehicle heating systems with low exhaust gas temperature	A-A (SV) A-P-K black	Black



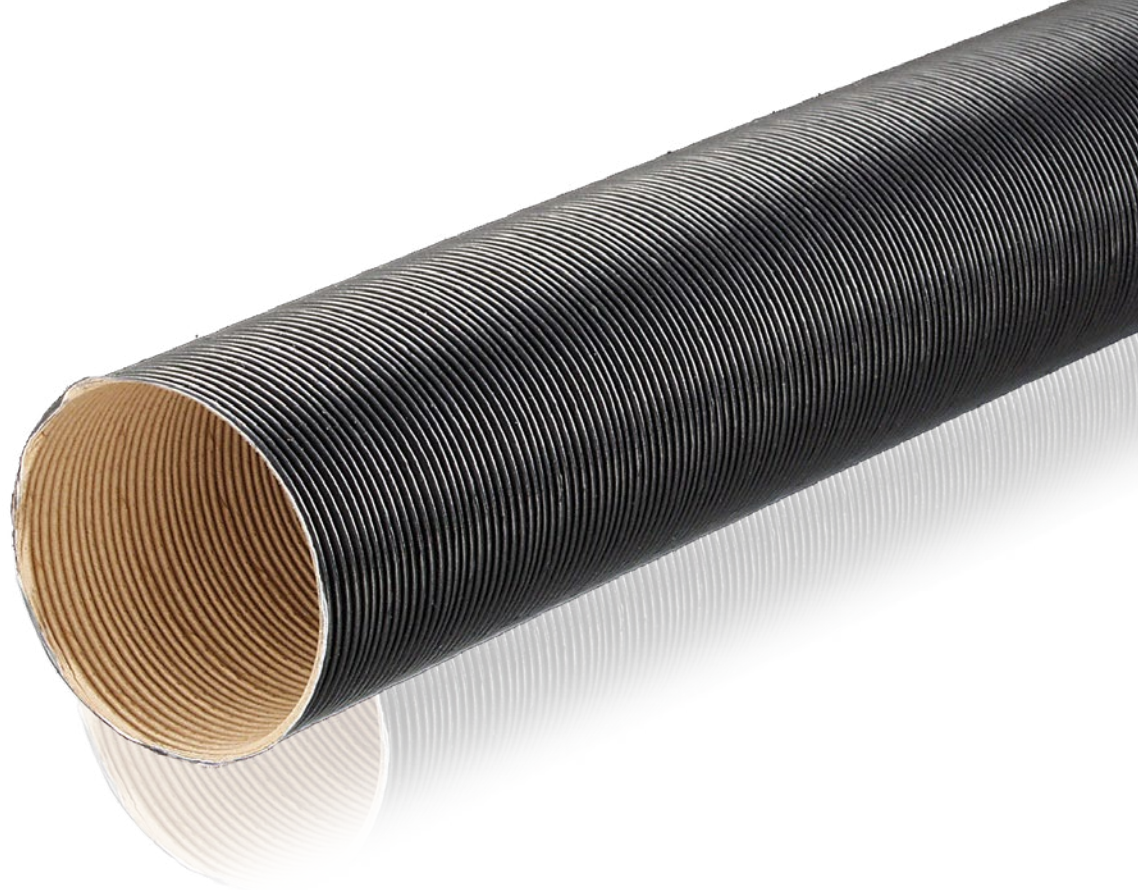
	Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance - at constant inner and outer temperature - at 20°C ambient temperature
	ID 51.3/60.5 ID 61.5/70.5	In fixed lengths of up to max. 2.9 m	Inner tube: Non-combustible according to DIN 4102, Cl. A1 Outer tube: no burning rate according to DIN 75200 and FMVSS 302	approx. 2 x ID	Up to + 110°C Permissible temperature of airflow through (inner tube) max. + 300°C
	ID 50.5 / ID 75.5	In fixed lengths of up to max. 2.5 m	Inner tube: Non-combustible according to DIN 4102, Cl. A1 Outer tube: no burning rate according to DIN 75200 and FMVSS 302	approx. 2 x ID	Up to + 110°C Permissible temperature of airflow through (inner tube) max. + 200°C
	ID 22.2/ID 30 ID 45 /ID 60	In fixed lengths of up to max. 2.5 m	Inner tube: Non-combustible according to DIN 4102, Cl. A1 Outer tube: no burning rate according to DIN 75200 and FMVSS 302	approx. 2 x ID	Up to + 110°C Permissible temperature of airflow through (inner tube) max. + 200°C

Insulation Tubes

OHLEF FLEXROHR®



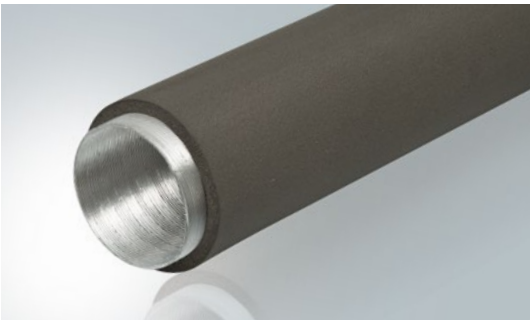
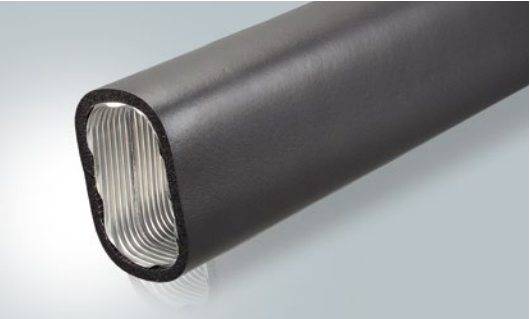
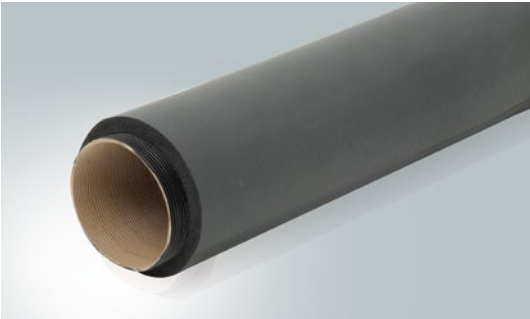
Brief description Colour Product/model	Application area	Tube structure	Colour
P-A-K black	Flexible tube to supply combustion air in vehicle heating systems, resistant to sprayed water and oil	Papier Aluminium Kunststoff-Folie, schwarz	Black
A-P-P-P-P-P beige	Insulation tube as protection against contact for VR 72 tube	Aluminium 5 layers of paper	Beige
GA2-A	Heat protection tube for insulating drinking water hoses	Fibreglass laminated on aluminium, Aluminium alloy	Silver



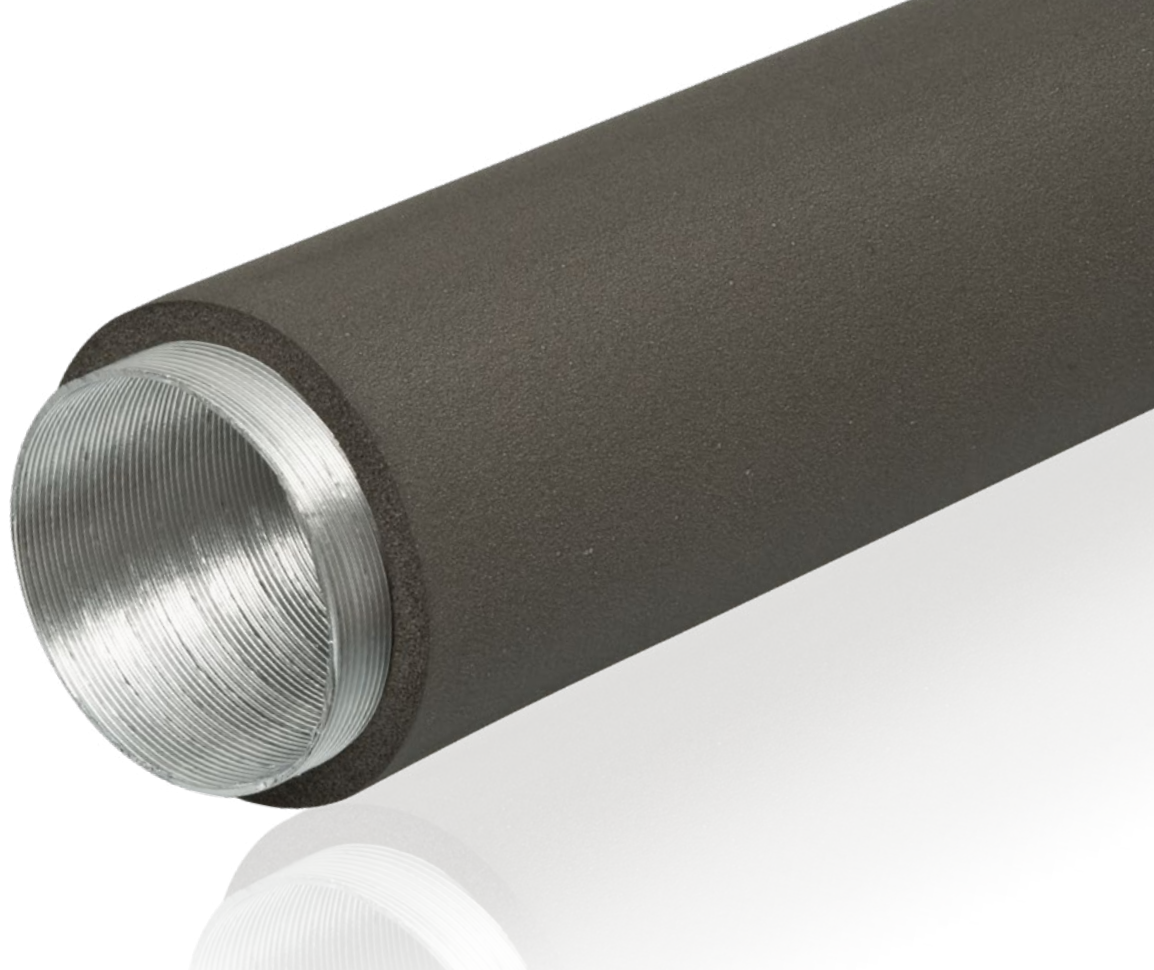
	Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance - at constant inner and outer temperature - at 20°C ambient temperature
	ID 70	In fixed lengths up to max. 3 m or in coils of up to 25 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 2 x ID	- 40° C to + 100° C + 140° C
	ID 80	In fixed lengths up to max. 3 m or in coils of up to 20 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 2 x ID	- 40° C to + 110° C + 150° C
	ID 12-25	In fixed lengths or in coils of up to 20 m	Burning rate = 0 according to DIN 75200 and FMVSS 302	approx. 1.5 x ID	- 40° C to + 250° C

Insulation Tubes

Insulated Twin Tubes OHLER® Twin Tube



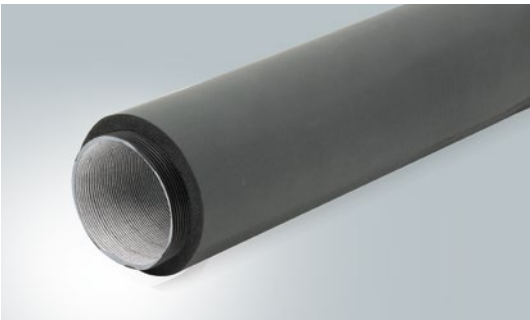
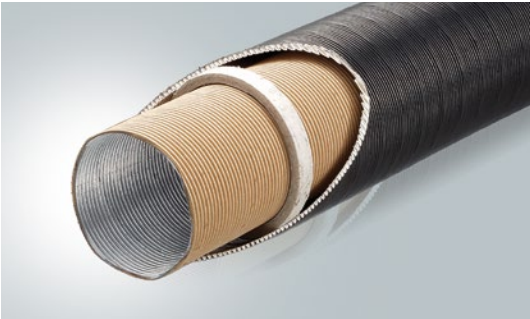
Brief description Colour Product/model	Application area	Tube structure	Colour
DR P-A-K black, insulated	Warm air tube with high insulation effect on the outside area of the vehicle, resistant to sprayed water	P-A-K Insulation	Black/ grey
DR SEMIFLEX® insulated, oval-shaped deformed	Warm air tube with high insulation effect on the outside area of the vehicle, resistant to sprayed water	SEMIFLEX® Insulation	Silver/ grey
DR A-A (SV), insulated	Warm air tube with high insulation effect on the outside area of the vehicle, resistant to sprayed water	A-A (SV) Insulation	Silver/ grey



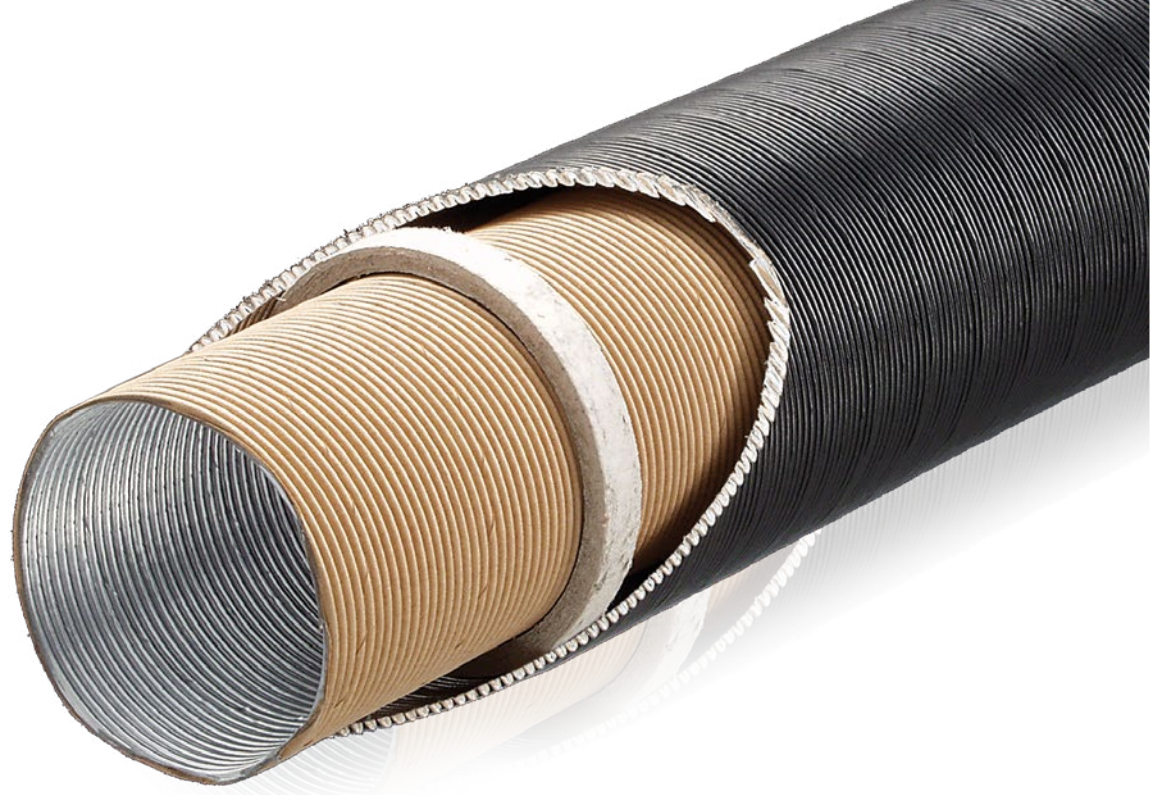
Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance - at constant inner and outer temperature - at 20°C ambient temperature
ID 80/ID 90	In 12 m coils	<p>Inner tube: No burning rate according to DIN 75200 and FMVSS 302</p> <p>Insulation: Flame-resistant according to DIN 4102-B2</p>	2 x ID	- 40° C to + 100° C + 140° C
ID 50x80	In fixed lengths of 200 – 2.000 mm	<p>Inner tube: not combustible according to DIN 4102, Cl. A1</p> <p>Insulation: regular flame resistance, self-extinguishing according to DIN 4102-B2</p>	/	Max. + 105° C airflow
ID 50 / ID 70.5 / ID 100	In fixed lengths of 150 – 2.900 mm	<p>Inner tube: not combustible according to DIN 4102, Cl. A1</p> <p>Insulation: regular flame resistance, self-extinguishing according to DIN 4102-B2</p>	<p>1.6 x ID 1.2 x ID 1.2 x ID</p>	Max. + 105° C airflow

Insulation Tubes

Insulated Twin Tubes OHLER® Dükerrohr



Brief description Colour Product/model	Application area	Tube structure	Colour
DR CARADUCT® / A-P-K black	Warm air tube with high insulation effect on the outside area of the vehicle, resistant to sprayed water and oil	CARADUCT® Spacers A-P-K black	Beige / Black
DR CARADUCT®-L / A-P-K black	Warm air tube with high insulation effect on the outside area of the vehicle, resistant to sprayed water and oil	CARADUCT®-L Polyester fleece A-P-K black	Beige / Black
DR A-P-K black, insulated	Warm air tube with high insulation effect on the outside area of the vehicle, resistant to sprayed water	A-P-K black Insulation	Black/ Grey



Dimensions	Form of delivery	Reaction to fire	Smallest bending radius (related to the neutral fibre)	Temperature resistance
ID 60.5/ID 75	In fixed lengths up to max. 3 m	No burning rate according to DIN 75200 and FMVSS 302	approx. 2 x ID	Max. + 150° C airflow
ID 60.5/ID 70	In fixed lengths up to max. 3 m	No burning rate according to DIN 75200 and FMVSS 302	approx. 2 x ID	Max. + 150° C airflow
ID 60/ID 64	In 10 m coils	No burning rate according to DIN 75200 and FMVSS 302	approx. 3 x ID	Max. + 105° C airflow

Products for custom applications

OHLER® Flexible Tubes, Hoses and Mats

We respond to individual customer requests by developing flexible solutions that are geared to the respective intended use.

Applications:

- Cold air duct with high insulating effect
- Tubes with individual printing
- Deformed tubes
- Heat insulation mats to protect entire areas
- Products for subsequent insulation of drinking water pipelines
- Sewn insulated hoses for difficult installation situations



Cold air duct for air conditioning unit



Heat protection shields resistant to radiant heat



Insulated twin tube to protect against convection heat



Highly flexible ventilation hose



High temperature insulation for exhaust tube



Insulated hoses and mats to protect against radiant heat

OHLER® Silencers

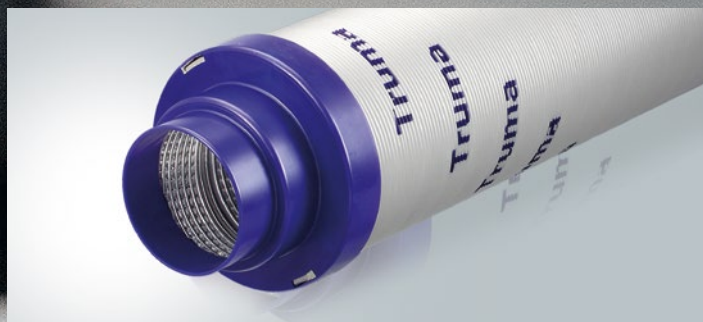
Diverse solutions aimed at preventative sound insulation help improve and boost comfort in the leisure vehicle environment. Various products have been created here to reduce sound emissions that have been specifically designed for this special requirement.

These include noise reduction from the combustion air intake, as well as exhaust emissions and reducing the noise transmission caused by telephony noise.

In addition to the soundproofing requirements, other factors must also frequently be taken into consideration during design. For example, exhaust silencers mounted so they are gas-tight satisfy the high safety regulations for installation inside the vehicle cabin.



Intake silencer for vehicle heating system



Telephony silencer for air conditioning unit



Exhaust silencer for boat heating system



Exhaust silencer for vehicle heating system



Gas-tight exhaust silencer



Not just aluminium, Novelis Aluminium.™

Novelis Inc. is the global leader in aluminium rolled products and the world's largest recycler of aluminium. The company operates in ten countries, has approximately 11,000 employees and reported \$12.3 billion in revenue for its 2019 fiscal year. Novelis supplies premium aluminium sheet and foil products to transportation, packaging, construction, industrial and consumer electronics markets throughout North America, Europe, Asia and South America. Novelis is a subsidiary of Hindalco Industries Limited, an industry leader in aluminium and copper, and metals flagship company of the Aditya Birla Group, a multinational conglomerate based in Mumbai, India.

For more information visit www.novelis.com and follow us on Facebook at facebook.com/NovelisInc and Twitter at twitter.com/Novelis.

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