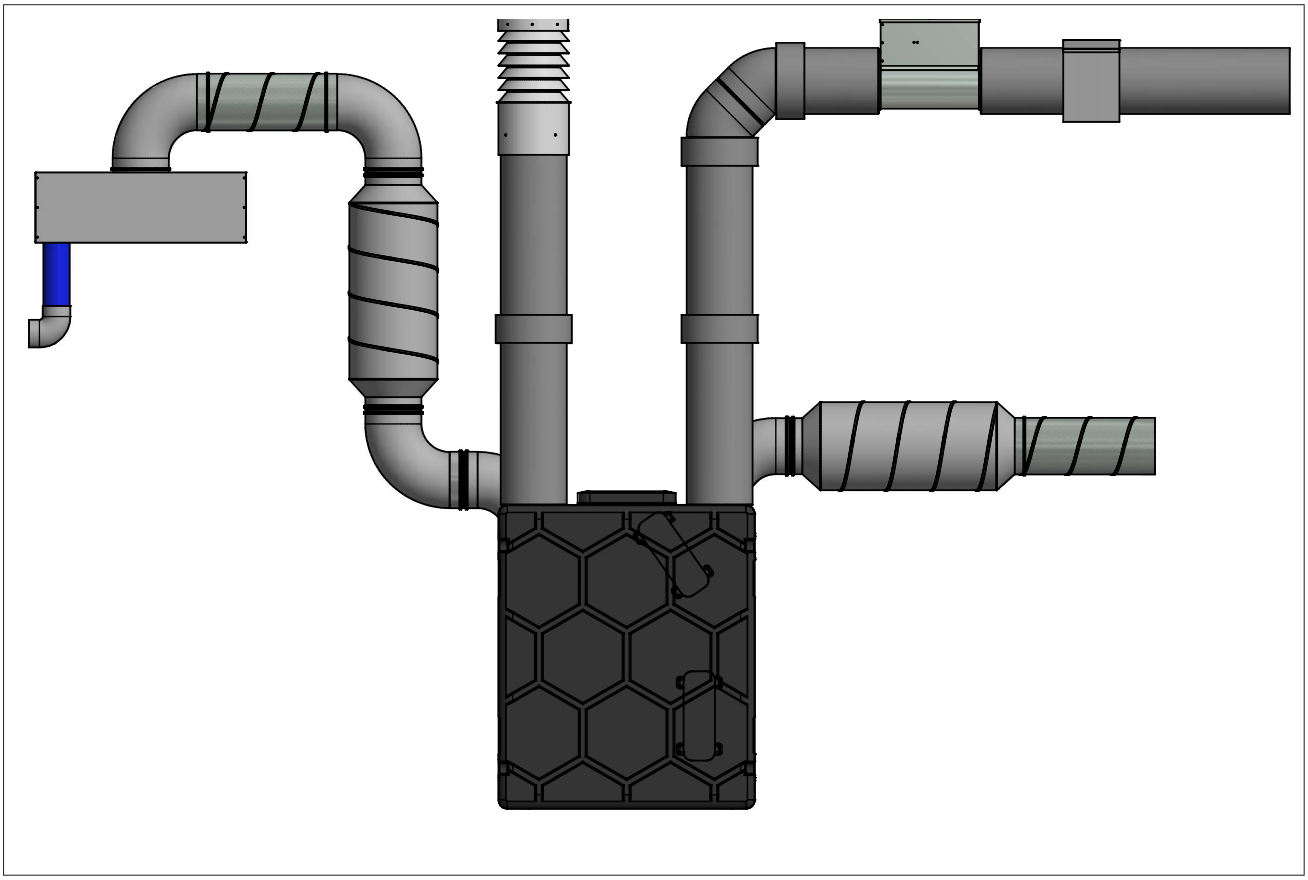
Ducts and fittings made of EPP

ALNOR reserves the right to modify technical specifications in line with the policy of continuous product improvement.



About the system

The EPP duct system is made of expanded polypropylene. The system has a number of design and installation advantages: low weight, quick installation (no additional connectors or screws required), no additional insulation is required since the material itself is already an insulator, easy to cut using hand tools, no thermal bridges. Thermal conductivity: λ=0.039 [W / m * k]

Dimensions

Ducts and fittings are available in the following diameters (inner): Ø100, Ø125, Ø160, Ø180 and Ø200. The ducts are sold in two lengths: 500 and 1000 mm. The wall thickness is 15mm (standard version, graphite color) or 43mm (expanded version, black color). Each duct 15mm thick duct or fitting is supplied with 1 female coupling, while 43mm ones have integrated male-female couplings.
The inner diameter of the EPP duct system fits the size of the SPIRAL®System components with male ends.

Installation

The EPP ducts and fittings are connected using a female coupling which is supplied to each element. Each coupling has double <fold>, similar to double seals in the SPIRAL®System, thanks to which the system achieves airtightness class C (according to EN 12237). EPP is easy to process, each 90˚bend can easily be cut in half, giving two 45˚ bends.
Moreover, the EPP system components can be combined and adapted with the male elements of the SPIRAL®System (it's recommended to choose fittings with seals). The ducts fit directly into the connectors of the PremAIR heat recovery units and into the FLX-PLO-R or FLX-PRO-R distribution boxes (manifolds). The EPP duct can also be fitted directly with air intake and exhaust vents, e.g. USLA and USAV.
Due to the lightweight design of the elements, the suspension system is practically unnecessary. If additional clamps are needed - standard suspension clamps with the following diameters can be used.

Code	*Outer diameter in [mm]*	*Recommended Suspension clamp*
EPP-SRGL-125	155	CLRU-150
EPP-SRGL-150	180	CLRU-180
EPP-SRGL-160	190	CLRU-192
EPP-SRGL-180	210	CLRU-200
EPP-43-SRGL-160	246	
EPP-43-SRGL-200	286	

Ventilation ducts made of EPP

EPP-SRGL

Description

Round ventilation duct made of expanded polypropylene (EPP). The most important features of the product are: rigid construction, low weight, easy assembly (female coupling on each element) and good thermal insulation. EPP ducts, used, for example, as sections of the supply and exhaust ventilation systems with heat recovery, do not require additional insulation. The system eliminates the formation of thermal bridges.
EPP ducts are manufactured in 0.5 m and 1 m sections and diameters 125, 150, 160 and 180 mm. The standard wall thickness is 15mm (gray colour). The duct is supplied with one female coupling in the set.

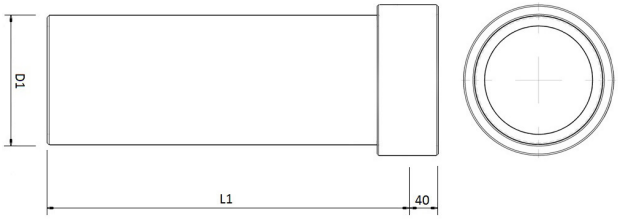
Thermal conductivity: 0.039 W / m * K
Airtightness class: C
Surface roughness: 0.077 mm

Available materials:
EPP-SRGL-...- EPP (expanded polypropylene)

Product code example:
Product code: **EPP-SRGL - 125 - 0100**

type
diameter
lenght

Dimensions



Product code	Diameter [mm]	Wall thickness [mm]	Length [mm]
EPP-SRGL-125-0050	125	15	500
EPP-SRGL-150-0050	150	15	500
EPP-SRGL-160-0050	160	15	500
EPP-SRGL-180-0050	180	15	500
EPP-SRGL-125-0100	125	15	1000
EPP-SRGL-150-0100	150	15	1000
EPP-SRGL-160-0100	160	15	1000
EPP-SRGL-180-0100	180	15	1000

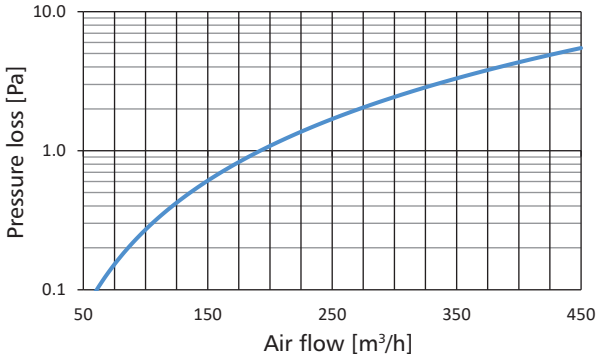
Ventilation ducts made of EPP

EPP-SRGL

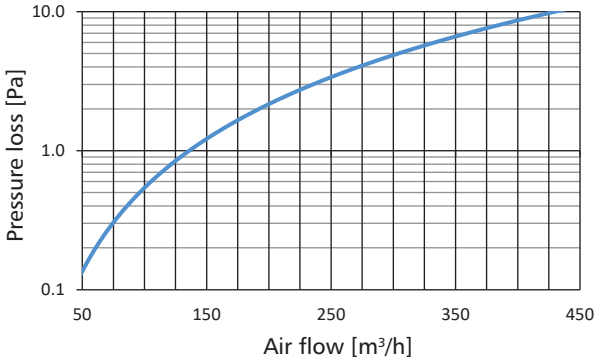
Technical data

Pressure loss chart

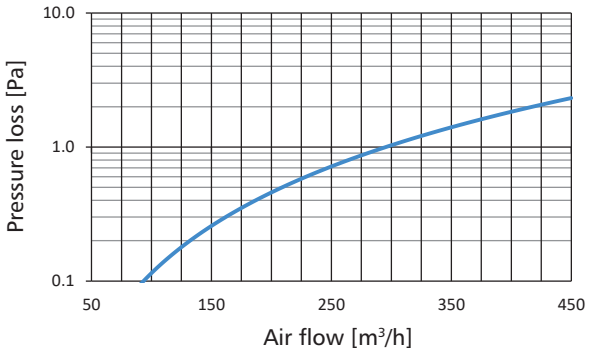
Measurement: **inner diameter: 125mm, length: 0.5m**, temp: 25°C, P_{atm}: 1004 mBar, ρ (density): 1.173 kg/m³



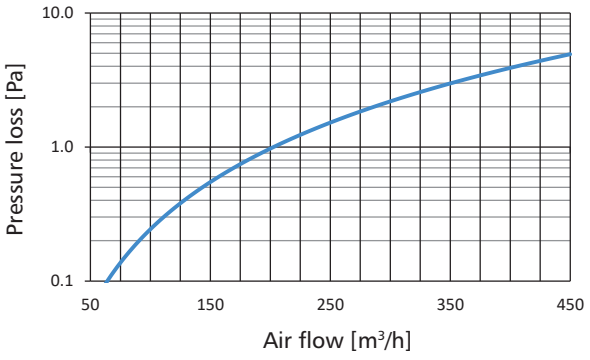
Measurement: **inner diameter: 125mm, length: 1m**, temp: 25°C, P_{atm}: 1004 mBar, ρ (density): 1.173 kg/m³



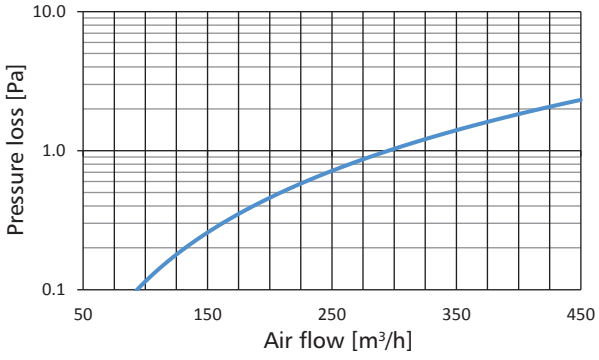
Measurement: **inner diameter: 150mm, length: 0.5m**, temp: 28.5°C, P_{atm}: 1004 mBar, ρ (density): 1.159 kg/m³



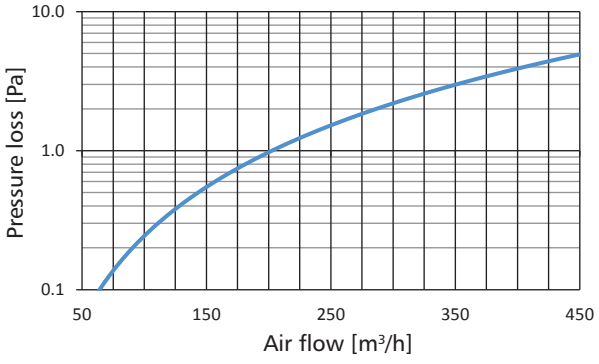
Measurement: **inner diameter: 150mm, length: 1m**, temp: 28.5°C, P_{atm}: 1004 mBar, ρ (density): 1.159 kg/m³



Measurement: **inner diameter: 160mm, length: 0,5m**, temp: 30.6°C, P_{atm}: 1004 mBar, ρ (density): 1.151 kg/m³



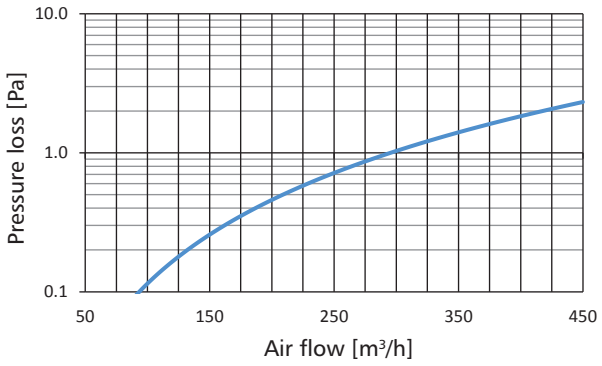
Measurement: **inner diameter: 160mm, length: 1m**, temp: 30.6°C, P_{atm}: 1004 mBar, ρ (density): 1.151 kg/m³



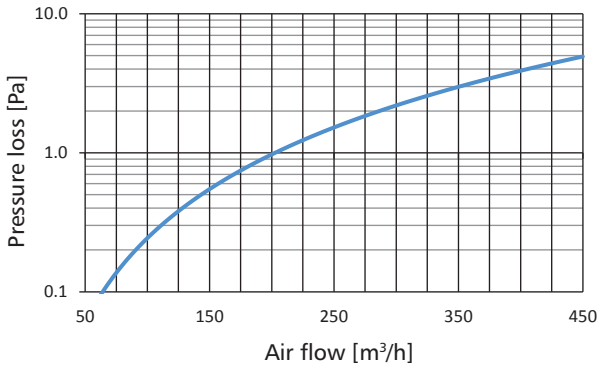
Ventilation ducts made of EPP

EPP-SRGL

Measurement: **inner diameter: 180mm, length: 0,5m**, temp: 33.8˚C, P_{atm}: 1004 mBar, ρ (density): 1.139 kg/m³



Measurement: **inner diameter: 180mm, length: 1m**, temp: 33.8˚C, P_{atm}: 1004 mBar, ρ (density): 1.139 kg/m³



Ventilation ducts made of 43mm thick EPP

EPP-43-SRGL

Description

Round ventilation duct made of expanded polypropylene (EPP). The most important features of the product are: rigid construction, low weight, easy assembly and good thermal insulation. EPP ducts, used, for example, as sections of the supply and exhaust ventilation systems with heat recovery, do not require additional insulation. The system eliminates the formation of thermal bridges.
EPP ducts are manufactured in 1 m sections and diameters 160 and 200 mm, wall thickness is 43mm (black colour). Ducts na fittings do not require additional couplings.

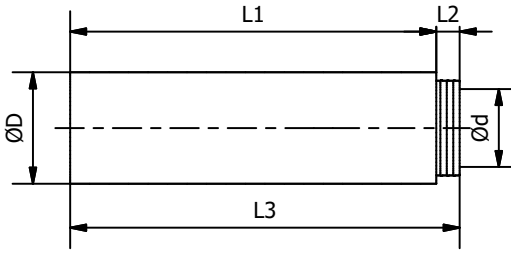
Thermal conductivity: 0.039 W / m * K
Airtightness class: C
Surface roughness: 0.077 mm

Available materials:
EPP-43-SRGL-...- EPP (expanded polypropylene)

Product code example:
Product code: **EPP-43-SRGL - 160 - 0100**

type
diameter
lenght

Dimensions



Kod	Ød [mm]	ØD [mm]	L_1 [mm]	L_2 [mm]	L_3 [mm]
EPP-43-SRGL-160-0100	160	246	940	60	1000
EPP-43-SRGL-200-0100	200	286	940	60	1000

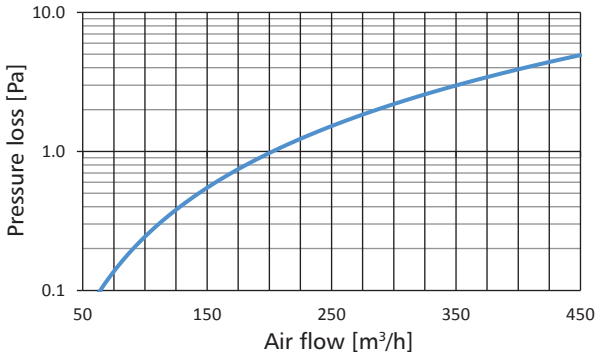
Ventilation ducts made of 43mm thick EPP

EPP-43-SRGL

Technical data

Pressure loss chart

Measurement: **inner diameter: 160mm, length: 1m**,
temp: 30.6°C, P_{atm}: 1004 mBar, ρ (density): 1.151 kg/m³



90° Ventilation bend made of EPP

EPP-BPF-90

Description

90° ventilation bend made of expanded polypropylene (EPP). Bends are produced in diameters 125, 150, 160 and 180mm. The standard wall thickness is 15mm (gray). Each bend is delivered with one female coupling in the set, the connection method eliminates thermal bridges. The 90° bend can be cut in half along the extrusion, forming two 45° bends (an additional EPP-MSF may be needed).

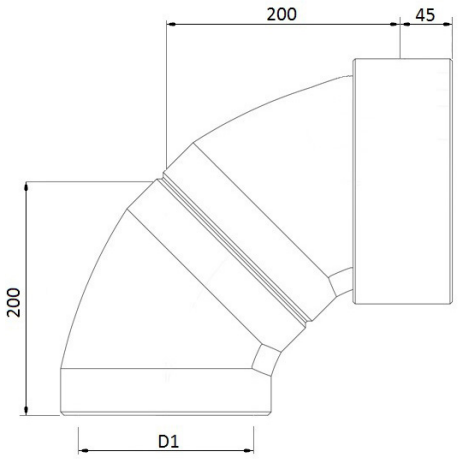
Thermal conductivity: 0.039 W / m * K
Airtightness class: C
Surface roughness: 0.077 mm

Available materials:
EPP-BPF-….- EPP (expanded polypropylene)

Example of marking:
Product code: **EPP-BPF - aaa - bbb**

type
diameter Ød$_1$
angle

Dimensions



Product code	*Diameter [mm]*	*Wall thickness [mm]*
EPP-BPF-125-90	125	15
EPP-BPF-150-90	150	15
EPP-BPF-160-90	160	15
EPP-BPF-180-90	180	15

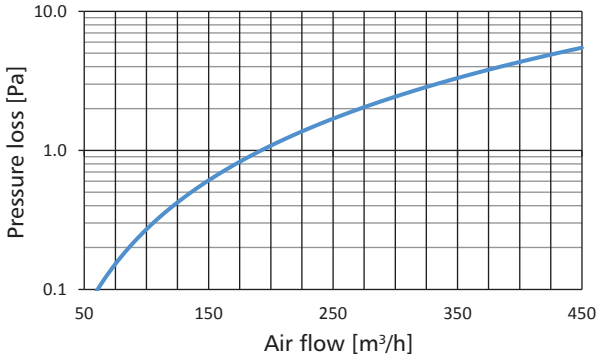
90° Ventilation bend made of EPP

EPP-BPF-90

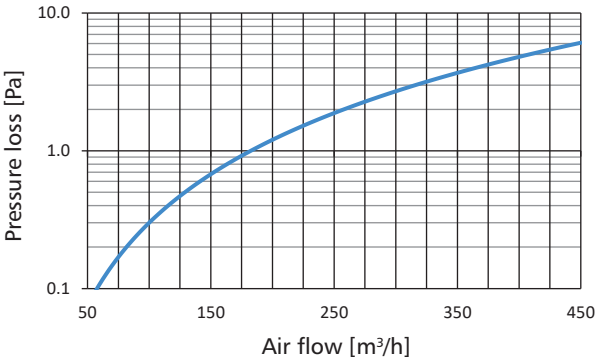
Technical data

Pressure loss chart

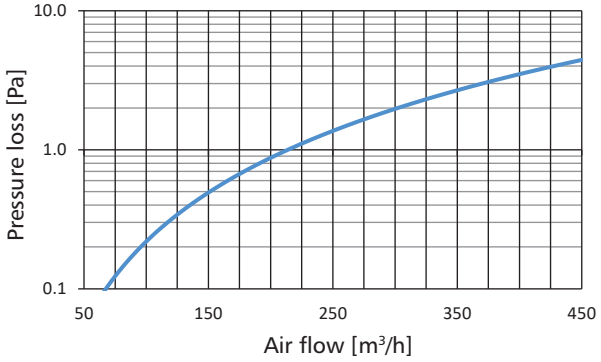
Measurement: **inner diameter: 125mm, angle: 90°**, temp: 25°C, P_{atm}: 1004 mBar, ρ (density): 1.173 kg/m³



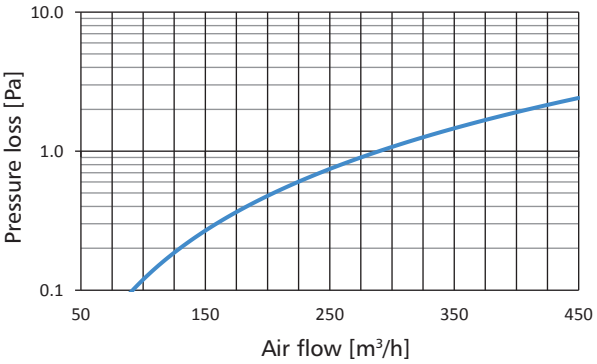
Measurement: **inner diameter: 150mm, angle: 90°**, temp: 28.9°C, P_{atm}: 1004 mBar, ρ (density): 1.158 kg/m³



Measurement: **inner diameter: 160mm, angle: 90°**, temp: 32°C, P_{atm}: 1004 mBar, ρ (density): 1.146 kg/m³



Measurement: **inner diameter: 180mm, angle: 90°**, temp: 27.4°C, P_{atm}: 1015 mBar, ρ (density): 1.176 kg/m³



45° Ventilation bend made of EPP

EPP-BPF-45

Description

Ventilation bends 45° made from expanded polypropylene (EPP). Bends are produced in diameters 125, 150, 160 and 180mm. The standard wall thickness is 15mm (gray). Each bend is delivered with one female coupling in the set, the connection method eliminates thermal bridges.

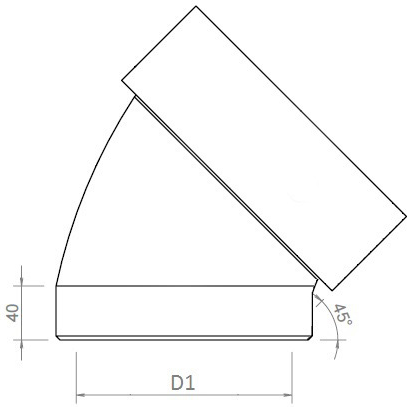
Thermal conductivity: 0.039 W / m * K
Airtightness class: C
Surface roughness: 0.077 mm

Available materials:
EPP-BPF-….- EPP (expanded polypropylene)

Example of marking:
Product code: **EPP-BPF - aaa - bbb**

type
diameter Ød$_1$
angle

Dimensions



Product code	*Diameter [mm]*	*Wall thickness [mm]*
EPP-BPF-125-45	125	15
EPP-BPF-150-45	150	15
EPP-BPF-160-45	160	15
EPP-BPF-180-45	180	15

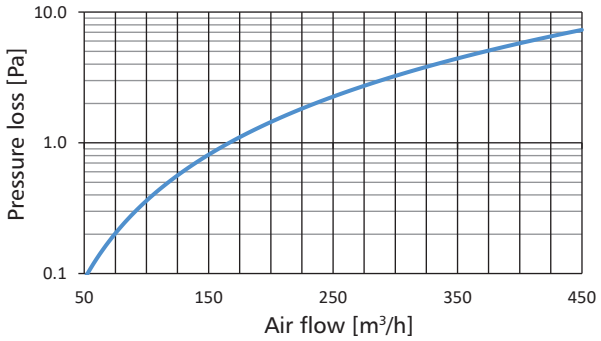
45° Ventilation bend made of EPP

EPP-BPF-45

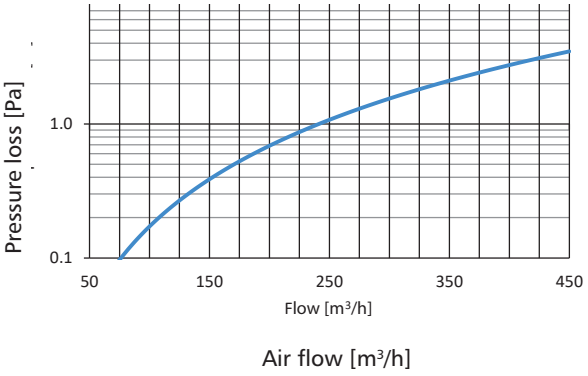
Technical data

Pressure loss chart

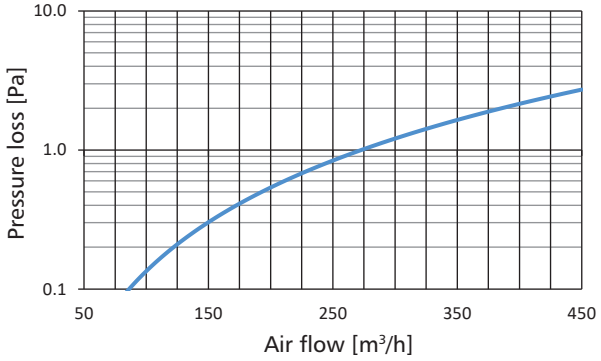
Measurement: **inner diameter: 125mm, angle: 45°**,
temp: 24.8°C, P_{atm}: 1004 mBar, ρ (density): 1.174 kg/m³



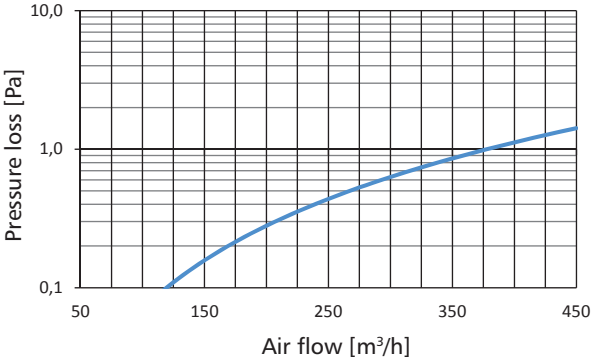
Measurement: **inner diameter: 150mm, angle: 45°**,
temp: 28.5°C, P_{atm}: 1004 mBar, ρ (density): 1.159 kg/m³



Measurement: **inner diameter: 160mm, angle: 45°**,
temp: 28,2°C, P_{atm}: 1015 mBar, ρ (density): 1.173 kg/m³



Measurement: **inner diameter: 180mm, angle: 45°**,
temp: 27,8°C, P_{atm}: 1015 mBar, ρ (density): 1.175 kg/m³



45° Ventilation bend made of 43mm thick EPP

EPP-43-BPF-45

Description

Ventilation bends 45° made from expanded polypropylene (EPP). Bends are produced in diameters 160 and 200mm. The standard wall thickness is 43mm (black colour). The connection method eliminates thermal bridges, no additional couplings are required. To create a 90° bend two 45° beds can be connected together.

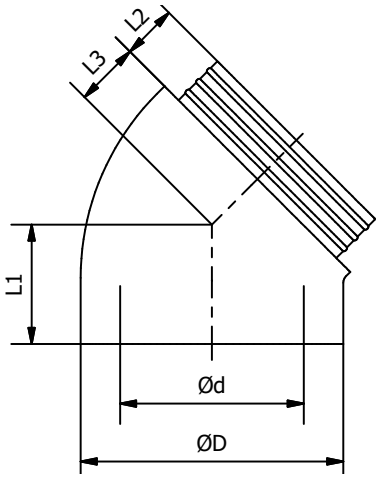
Thermal conductivity: 0.039 W / m * K
Airtightness class: C
Surface roughness: 0.077 mm

Available materials:
EPP-43-BPF-….- EPP (expanded polypropylene)

Example of marking:
Product code: **EPP-43-BPF - 125 - 45**

type
diameter Ød$_1$
angle

Dimensions



Product code	Ød [mm]	ØD [mm]	L_1 [mm]	L_2 [mm]	L_3 [mm]
EPP-43-BPF-160-45	160	246	122	60	60
EPP-43-BPF-200-45	200	286	130	60	70

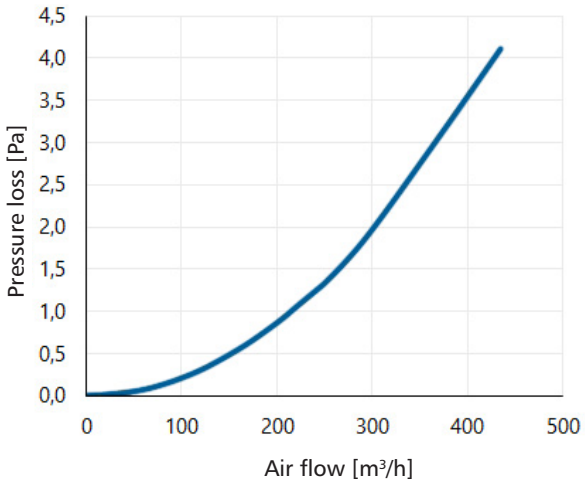
45° Ventilation bend made of 43mm thick EPP

EPP-43-BPF-45

Technical data

Pressure loss chart

Measurement: **inner diameter: 160mm, angle: 45°**, temp: 25°C, P_{atm}: 1004 mBar, ρ (density): 1.173 kg/m³



Female coupling made of EPP

EPP-MSF

Description

Female coupling made of expended polypropylene (EPP) for connecting ducts and fittings. The coupling is used to connect all elements of the EPP duct system: duct+duct, duct+fitting, fitting+fitting.
The female couplings are produced in the following diameters: 125, 150, 160 and 180mm.

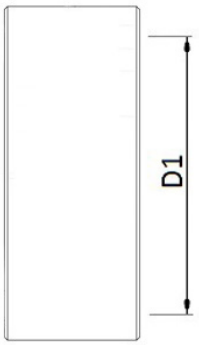
Thermal conductivity: 0.039 W / m * K
Airtightness class: C
Surface roughness: 0.077 mm

Available materials:
EPP-MSF-….- EPP (expanded polypropylene)

Example of marking:
Product code: **EPP-MSF - aaa**

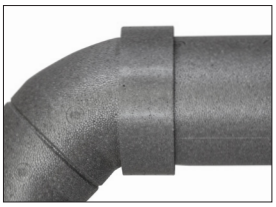
type
diameter Ød$_1$

Dimensions



Product code	*Diameter [mm]*	*Wall thickness [mm]*
EPP-MSF-125	125	15
EPP-MSF-150	150	15
EPP-MSF-160	160	15
EPP-MSF-180	180	15

Assembly method



Female coupling made of 43mm EPP

EPP-43-MSF

Description

Female coupling made of expended polypropylene (EPP) for connecting 43mm thick ducts and fittings. The coupling is used as additional piece, for example when connecting ducts which were cut. Such coupling is put on the outer diameter of a duct.
The female couplings are produced in the following diameters: 160 and 200mm.

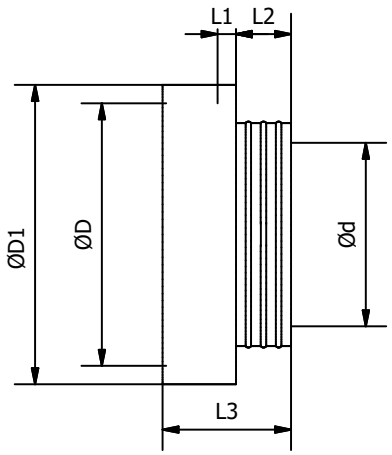
Thermal conductivity: 0.039 W / m * K
Airtightness class: C
Surface roughness: 0.077 mm

Available materials:
EPP-43-MSF-….- EPP (expanded polypropylene)

Example of marking:
Product code: **EPP-43-MSF - 200**

type
diameter Ød$_1$

Dimensions



Product code	Ød [mm]	ØD [mm]	ØD$_1$ [mm]	L$_1$ [mm]	L$_2$ [mm]	L$_3$ [mm]
EPP-43-MSF-160	160	246	286	20	60	140
EPP-43-MSF-200	200	286	326	20	60	140

One-piece suspension ring

CLRU

Description

Instalacja wentylacyji składająca się z kanałów i kształtek z EPP jest bardzo lekka i wytrzymała. Jeśli zajdzie potrzeba podwieszenie instalcji lub jej przymocowania można użyć do tego standardowych obejm jednoczęściowych CLRU. Górna część – uszy skręcane są ze sobą za pomocą śruby stalowej i nakrętki.

Available materials:

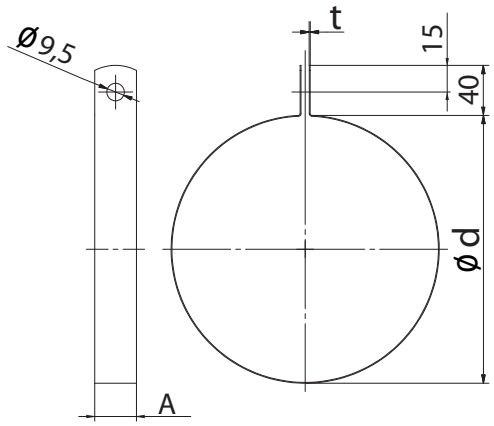
CLRU-...-... - galvanized steel sheet
CLRU-K-...-... - 1.4301/304 stainless steel sheet
CLRU-K-...-...-316L - 1.4404/316L stainless steel sheet, molybdenum-enriched

Example of marking:

Product code: **CLRU - 160 - 120**

type
Ød$_1$
thickness t

Dimensions



Ød [mm]	A [mm]	t [mm]	A [mm]	t [mm]
125	25	2,0	30	1,2
150	25	2,0	30	1,2
160	25	2,0	30	1,2
180	25	2,0	30	1,2

Assembly method