

b.safe

Data sheet b.safe Exhaust Filters



A product brand of Bohlender

b.safe Exhaust Filters

Material: **PP** | Temperature resistance: **0 °C to +110 °C** |
Chemical resistance: **++ very good**

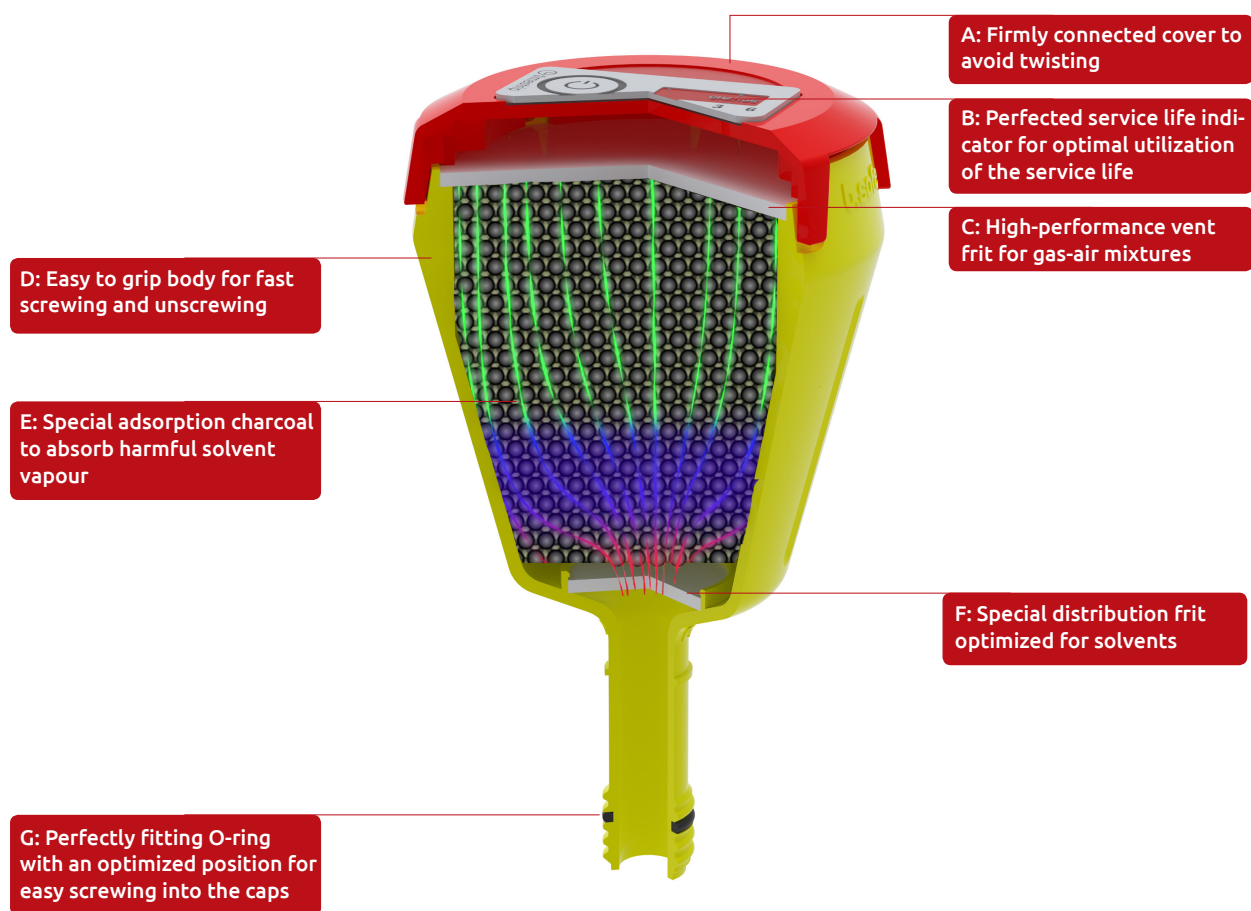
Filter body made of PP with connector (thread GL14) for b.safe Waste Caps. Cap with aeration openings and service life indicator having a title block to monitor service life.
Filling made of activated carbon for adsorption of solvents.

	Size	Service life	Packing unit	Cat. No.
A	Small	3 months	2 pcs.	M 506-01
B	Medium	6 months	2 pcs.	M 506-02
C	Large	12 months	2 pcs.	M 506-03

Application:

Safe disposal of solvents without leakage of harmful solvent vapours. The activated carbon in the b.safe Exhaust Filter restrains solvent vapours from the escaping air during filling. The service life of the filter can be easily monitored through either activating the display on the cap and exchanging the filter in case of completely red colouring or documentation of the exchange date by hand.

We recommend the following filter sizes: Size Small for up to 5 litres, size Medium for 5-10 litres, and size Large for more than 10 litres.



A: b.safe Cover for exhaust filters

Polypropylene

Properties	Value	Test standard
Colour	nature	-
Mold shrinkage	0,012 mm/mm	ASTM D 955
Density, 73 ° F	1040 kg/m ³	ASTM D 792
Notched impact strength 23 °C	3,5 kJ/m ²	ISO 180/1A
Izod impact strength	25 kJ/m ²	ISO 180/1U
Tensile modulus	1900 MPa	ASTM D 638
Tensile strength at yield	22 MPa	ASTM D 638
Elongation at break	20 %	ASTM D 638
Flammability at a nominal 1.5 mm	V-0 class	UL 94
Flammability at thickness 0.8 mm	V-0 class	UL 94
DTUL at 264 psi	65 ° C	ASTM D 648
Vicat temperature	100 ° C	ASTM D 1525
Comparative tracking index	600	IEC 60112
Conformities	FDA RoHs REACH BSE/TSE	VO 10/2011/EU 2011/65/EU RoHS EC 1907/2006 1774/2002/EG

Color red

Properties	Value	Test standard
Colour	red	-
Physical state	firmly	-
Odor	weak	-
Carrier	Polyethylene	-
Softening area	100 - 140 ° C	-
Relativ density	1 - 1,5 g/cm ³	-
Water solubility 20 ° C	insoluble	-
Decomposition temperature	> 300 ° C	-
Reactivity	none	-
Chemical stability	chemically stable	-
Temperature resistance	270 ° C	DIN 53772
Lightfastness	2 - 3	DIN EN ISO 4892
Conformities	RoHs REACH BSE/TSE	2011/65/EU RoHS EC 1907/2006 1774/2002/EG

B: b.safe Service life indicator 3 months

Properties	Value	Test standard
Colour	light gray	-
Ingredients	PET Laminate 4-5 wt.% Polymeric assembly layers 33-36 wt.% Aluminum-plastic-laminate 23-26 wt.% Vegetable oils 15-8 wt.% Red liquid dye 4-2 wt.% Heat-sealing Polymer 0,1-1 wt.% Graphic ink and lacquer 0,1-1 wt.% Adhesive tape + Liner (full) 21-23 wt.%	-
Running time	3 months (90 days)	-
Calibration temperature	22 ° C +/- 1 ° C	-
Temporal accuracy under isothermal conditions	+/- 15 %	-
Activation force	5 +/- 2 kgf	-
Recommended temperature / relative humidity	22 ° C / 72 ° F at 20-80% relative humidity	-
Conformities	FDA	21CFR § 177.1520.

B: b.safe Service life indicator 6 months

Properties	Value	Test standard
Colour	light gray	-
Ingredients	PET Laminate 4-5 wt.% Polymeric assembly layers 33-36 wt.% Aluminum-plastic-laminate 23-26 wt.% Vegetable oils 15-8 wt.% Red liquid dye 4-2 wt.% Heat-sealing Polymer 0,1-1 wt.% Graphic ink and lacquer 0,1-1 wt.% Adhesive tape + Liner (full) 21-23 wt.%	-
running time	6 months (180 days)	-
Calibration temperature	22 ° C +/- 1 ° C	-
Temporal accuracy under isothermal conditions	+/- 15 %	-
Activation force	5 +/- 2 kgf	-
Recommended temperature / relative humidity	22 ° C / 72 ° F at 20-80% relative humidity	-
Conformities	FDA	21CFR § 177.1520.

B: b.safe Service life indicator 12 months

Properties	Value	Test standard
Colour	blue	-
Ingredients	PET Laminate 4-5 wt.% Polymeric assembly layers 33-36 wt.% Aluminum-plastic-laminate 23-26 wt.% Vegetable oils 15-8 wt.% Red liquid dye 4-2 wt.% Heat-sealing Polymer 0,1-1 wt.% Graphic ink and lacquer 0,1-1 wt.% Adhesive tape + Liner (full) 21-23 wt.%	-
running time	6 months (180 days)	-
Calibration temperature	22 ° C +/- 1 ° C	-
Temporal accuracy under isothermal conditions	+/- 15 %	-
Activation force	5 +/- 2 kgf	-
Recommended temperature / relative humidity	22 ° C / 72 ° F at 20-80% relative humidity	-
Conformities	FDA	21CFR § 177.1520.

C: b.safe High performance vent frit

Polyethylene

Properties	Value	Test standard
Colour	white	-
Thickness	2,00 +/- 0,2 mm	-
Average pore size	20 - 60 µm	-
Airflow	500 - 2100 ml/min	1,2" water
Target density	0,46 - 054 g / cm ³	-
Tensile strength average	> 1,1 N/mm ²	-
Tensile strength individual	> 1,0 N/mm ²	-
Foreign particle size	not > 1,6 mm	-

D: b.safe Body

Polypropylene

Properties	Value	Test standard
Colour	nature	-
Mold shrinkage	0,012 mm/mm	ASTM D 955
Density, 73 ° F	1040 kg/m ³	ASTM D 792
Notched impact strength 23 °C	3,5 kJ/m ²	ISO 180/1A
Izod impact strength	25 kJ/m ²	ISO 180/1U
Tensile modulus	1900 MPa	ASTM D 638
Tensile Strength at Yield	22 MPa	ASTM D 638
Elongation at break	20 %	ASTM D 638
Flammability at a nominal 1.5 mm	V-0 class	UL 94
Flammability at thickness 0.8 mm	V-0 class	UL 94
DTUL at 264 psi	65 ° C	ASTM D 648
Vicat temperature	100 ° C	ASTM D 1525
Comparative tracking index	600	IEC 60112
Conformities	FDA	VO 10/2011/EU
	RoHs	2011/65/EU RoHS
	REACH	EC 1907/2006
	BSE/TSE	1774/2002/EG

Color bight yellow

Properties	Value	Test standard
Colour	bright yellow	-
Physical state	firmlly	-
Odor	weak	-
Carrier	Resin ester polymer	-
Softening area	65 - 85 ° C	-
Flash point	> 200 ° C	-
Relativ density	approx. 1,5 g/cm ³	-
Water solubility 20 ° C	insoluble	-
Decomposition temperature	> 280 ° C	-
Reactivity	none	-
Chemical stability	chemically stable	-
Temperature resistance	300 ° C	DIN 53772
Lightfastness	4	DIN EN ISO 4892
Conformities	RoHs	2011/65/EU RoHS
	REACH	EC 1907/2006
	BSE/TSE	1774/2002/EG

E: b.safe Special adsorption carbon optimized for solvents

Properties	Value	Test standard
Colour	black	-
Bulk density	410 ± 30 kg/m ³	ASTM D 2854
Moisture content	< 5 %	ASTM
Total surface area	1100 m ² /g	DIN ISO 9277
Diameter of particles	4 mm	ASTM D 2862
Ash content	< 10 wt. %	ASTM D 2866
CTC-adsorption	70 wt. %	ASTM D 5742
Ball Pan hardness	98-99 wt. %	ASTM D 3802

F: b.safe Special distribution frit optimized for solvents

Polyethylene

Properties	Value	Test standard
Colour	white	-
Thickness	2,00 +/- 0,2 mm	-
Average pore size	20 - 60 µm	-
Airflow	500 - 2100 ml/min	1,2" water
Target density	0,46 - 054 g / cm ³	-
Tensile strength average	> 1,1 N/mm ²	-
Tensile strength individual	> 1,0 N/mm ²	-
Foreign particle size	not > 1,6 mm	-

G: b.safe O-Ring

Fluororubber

Properties	Value	Test standard
Colour	black	-
Base elastomer	FKM	ISO 1629
Hardness	80 +/- 5 Shore A	DIN ISO 7619-1
Density	2,18 g / cm ³	DIN EN ISO 1183-1
Tensile strength	12,2 N / mm ²	DIN 53504, S2
Elongation at break	180 %	DIN 53504, S2
Compression set, type B	24 h 150 °C = 8 % 24 h 200 °C = 13 %	DIN ISO 815
Thermal analysis DDK / DSC	- 21 °C	DIN EN ISO 11357
TR-10	- 17 °C	ASTM D 1329
Conformities	DVGW DVGW BAM	DIN EN 549 DIN EN 682 Az. 19053709

Sophisticated Safety
Solutions for HPLC.

Better **b.safe**



Stand 02/0221

www.bsafede
+49 (0) 93 46-92 86-0

Bohlender GmbH · Waltersberg 8 · 97947 Grünsfeld · Germany