

Physical-technical specifications

	Permeaflon M60B highpore	Permeaflon M40W
Reference thickness	0.25 mm	0.25 mm
Material	Permeaflon – granulate developed by Berghof made of porous, virgin Polytetrafluoroethylene (PTFE) Symmetrical porous structure Hydrophobic on both sides Oleophobic on both sides (optional) Free of PFOA Free of heavy metals Free of animal substances	
Manufacturing process	Material compression by isostatic molding and sintering Followed by mechanical finishing	
Colour	Black	White
Typical water intrusion pressure (WIP)	> 0.6 bar	> 0.4 bar
Typical airflow rate (AFR) Δp = 70 mbar (1.0 psi)	> 16 L/h·cm ²	> 8 L/h·cm ²
Performance		
Thermal stability	-200 to 250°C	
Chemical resistance	Virtually universal	
Physiological properties	Physiologically insignificant	
SAFETY NOTE	At temperatures of > 400°C gaseous by-products from the thermal decomposition which are harmful to health must be anticipated.	
Transport and storage	No dangerous goods in terms of the transport regulations; Water Hazard Class (0) The product is easily susceptible to static charge, avoid friction Unlimited storage at room temperature	
Processing note	May be placed in any direction since it is symmetrically porous and backing-free May be welded thermally or by ultrasound to various plastics. This should be checked by the processor in individual instances Special processing notes apply in the case of self-adhesive execution	
Conformity	<ul style="list-style-type: none"> → IP68 protection class → ISO 16750-5:2010 → 2000/53/EG Guidelines for end-of life vehicles → Edict 10/2011/EG regarding plastic materials and articles intended to come into contact with food (implemented in Germany by BedGgstV - Directive on Articles for Daily Use), complemented by Guidelines 2011/8/EG, 2007/19/EG and 2002/72/EG → Guideline 2002/95/EG on the restriction of the use of certain hazardous substances in electrical and electronic equipment → Edict 2003/11/EG regarding restrictions on the marketing and use of certain dangerous substances and preparations (pentabromodiphenyl ether, octabromodiphenyl ether) <p>Note: The distributor is liable for seeing that the end product conforms to the regulations referred to here.</p>	

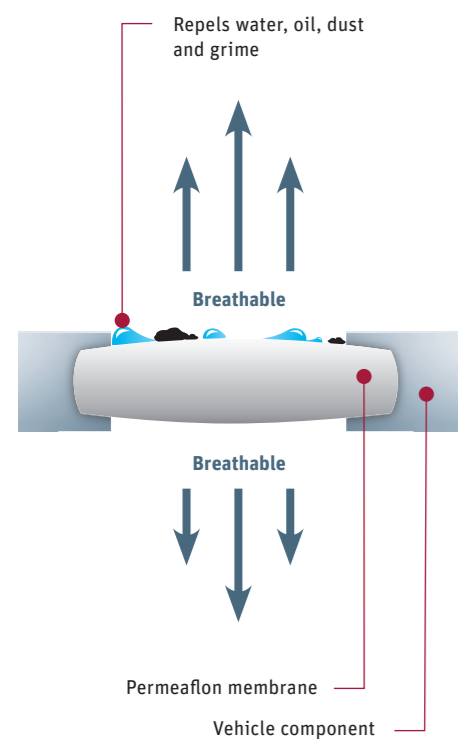
PTFE PRODUCTS

Permeaflon
Pressure compensation units
 Reliable protection of vehicle components

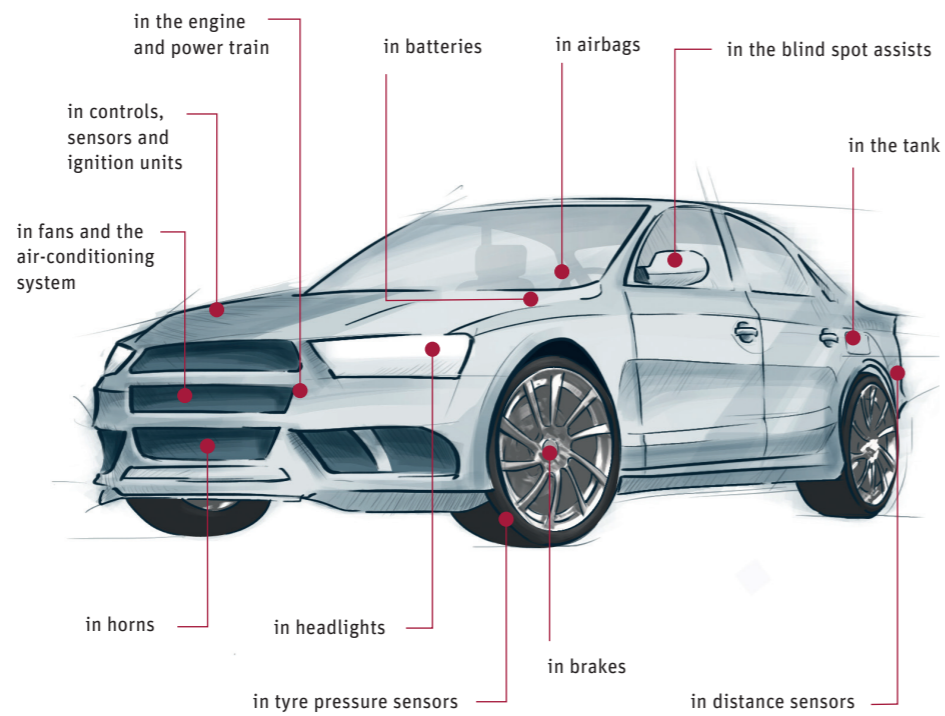
Permeaflon

Reliable protection against pressure fluctuation and water intrusion

permeaflon®



Uses of Permeaflon in the automotive sector



Manufacture

Permeaflon pressure compensation units consist of pure, porous PTFE and are therefore resistant to all media in the automotive environment. Berghof porous PTFE is sintered at over 300°C, providing the Permeaflon pressure compensation units with maximum thermal and dimensional stability. This makes it possible to realise even the most demanding applications (such as those involving direct contact with the engine for instance) without difficulty. In addition, the film membranes require no backing material, thus eliminating the risk of functional failure by delamination.

Permeaflon	
At a glance	Benefits
Porous PTFE	Free of perfluorooctanoic acid (PFOA)
No backing material, symmetrically	No risk of delamination by backing material
Hydrophobic and oleophobic on both sides	May be mounted either way round
Dimensionally stable and flexible in design	Can be individually integrated in any customer component
Universal chemical resistance	Also provides protection against aggressive media
Extremely temperature resistant	Can also be deployed in the immediate engine environment
Can be welded thermally and by ultrasound	Rapid attachment to the customer's component

In the interior of hermetic housings and in headlamps or batteries changes in temperature or differences in height cause substantial variations in the internal pressure. Permeaflon pressure compensation units (PCU) from Berghof compensate for differences in pressure and prevent penetration by water, dust, grime and even oils. The PCU therefore guarantee the reliable functioning of components in the vehicle over their long life cycle.



The right pressure compensation unit for your housing

As the specialist in ventilation and air-extraction products Berghof offers individually customised PCU. As a competent partner Berghof provides its customers with assistance right from the very first stage of development, accompanying the developmental process from evaluation of the required performance as regards airflow rate and water retention, right through to the geometry and assembly for optimal integration in the customer's structural component.

Individual and flexible in design

Thanks to its stable shape Permeaflon pressure compensation units can be supplied as backing-free film membranes in the form of reel packaging and also as precisely fitted stamped and turned parts in accordance with customers' specifications.

PTFE – the outstanding fluoroplastic

The high-performance plastic PTFE is the raw material for the Permeaflon pressure compensation units from Berghof. Its superb properties make Berghof PCU an optimal functional part in demanding automotive construction. The fact that they are chemically resistant to virtually all media as well as being resistant to water and even to oils means that there is really no alternative for this application.



Berghof uses pure s-PTFE, which, unlike e-PTFE, is obtained from a suspension; emulsifiers are, therefore, not required. This means that Berghof pressure compensation units are completely free of foreign matter such as pore-forming materials or the emulsifier perfluorooctanoic acid (PFOA), which is suspected of being a carcinogen.