



micronAir[®]

MICRONAIR INTEGRATED GASKET SOLUTION

NON-PU SEAL FOR MAXIMUM PERFORMANCE

FREUDENBERG
FILTRATION TECHNOLOGIES

 **FREUDENBERG**
INNOVATING TOGETHER



MICRONAIR

RELIABLE ENGINE PROTECTION

Modern high-performance engines need clean air to reach their maximum potential. Based on nonwovens technology, micronAir® has developed a fully synthetic engine intake air filter that effectively protects against natural impurities (pollen, dust, sand, etc.) and industrial pollution (soot, abrasion, emissions, etc.). In this way, the filter supports the smooth functioning of the engine while protecting both the engine and sensitive electronics from damage.

micronAir® Integrated Gasket Solution: Engine intake air filter with integrated seal

The next-generation engine intake air filter has arrived. The micronAir® Integrated Gasket Solution is an engine intake air filter that does not need a separate seal. The principle is simple but effective. Using a special mounting frame, the reinforced nonwoven fabric frame is so tightly pressed into the plastic housing that no contaminants can pass through the sides.

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micronAir® Integrated Gasket Solution is more effective than standard filters and offers tangible benefits

- **30 % to 40 % less weight**
micronAir® Integrated Gasket Solution is not only more effective but also significantly lighter than standard engine intake air filters.
- **Saves space**
micronAir® Integrated Gasket Solution uses a smaller filter area to achieve the same performance.
- **Perfect fit**
micronAir® Integrated Gasket Solution improves the use of available space – this actively contributes to the fulfillment of the EU pedestrian protection guidelines.
- **Much longer operational life**
Thanks to the fully synthetic material's excellent depth loading filtration performance, the life time of the filter is increased and initial filtration performance improved. It is also resistant to ingress of water.
- **100 % safety**
micronAir® Integrated Gasket Solution engine intake air filters are self-extinguishing to DIN 53438, making them much safer than standard filters in this respect. They also offer optimal system protection to ISO 5011.
- **Direct disposal**
After removal, the filter can be directly disposed of in its entirety. There is no need to separate materials.

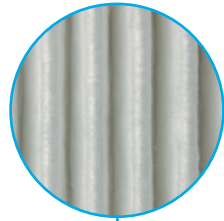
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Practical test passed

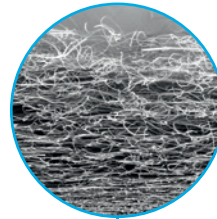
The micronAir® Integrated Solution engine intake air filter was installed in a Smart test vehicle. After completing a standard service interval fixed mileage, the result is clear: the filter functioned perfectly.

< Test vehicle



Perfection

Accurate pleat geometry leads to full use and uniform dust loading in the entire filter medium, as well as homogenous air flow with low or medium pressure drop.



Superior performance

Scanning with an electron microscope (SEM) displays progressive structure of the non-woven filter medium. This ensures the deep embedding of the dust particles.



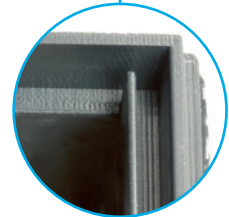
Innovation 1

Thanks to the unique reinforced nonwoven frame, there is no need for a separate gasket.



Innovation 2

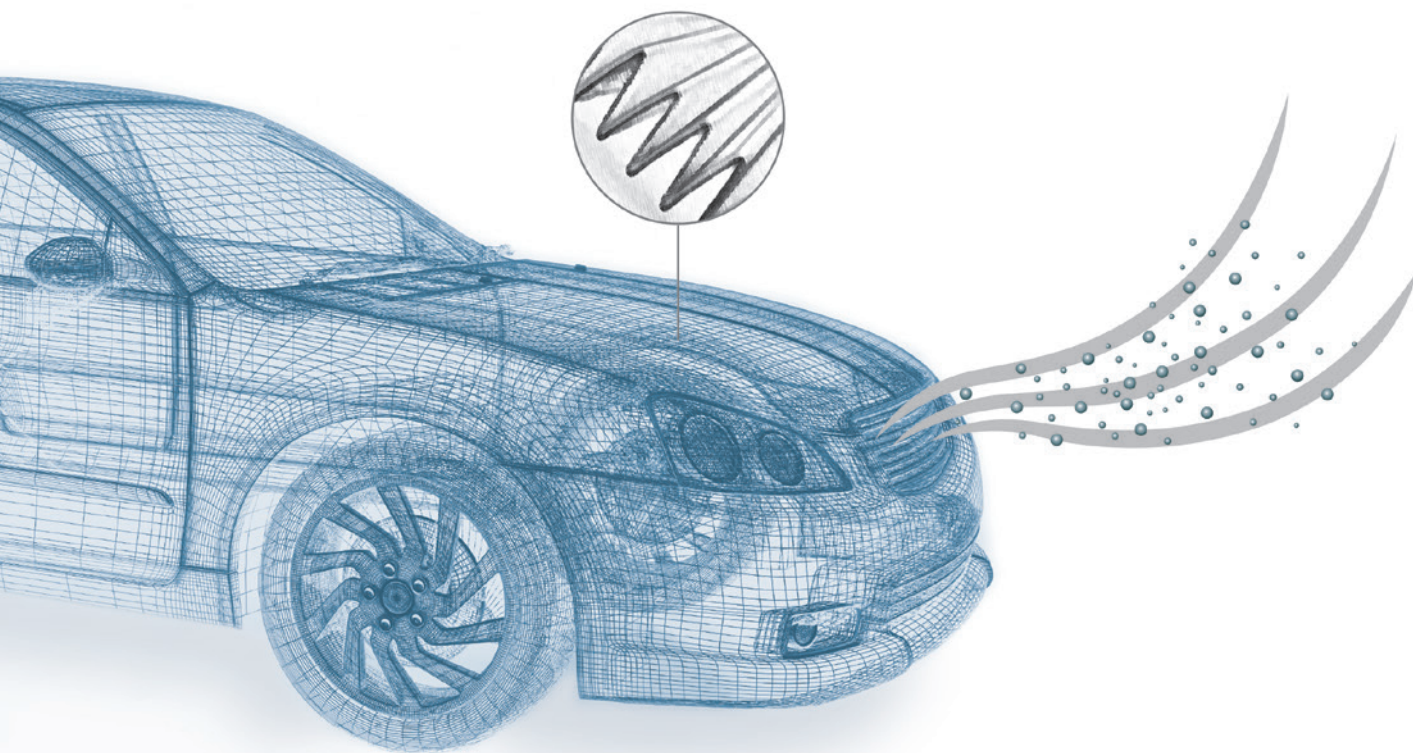
Special blades in the plastic housing press the filter tightly into place. No impurities can pass through, and there is no need for a separate gasket.



Preferred partner of the automotive industry

Freudenberg Filtration Technologies is the innovation leader and preferred development partner for cabin air filtration solutions in the automotive industry. Our fully synthetic filters also bring measurable benefits to engine

intake air filtration, far in advance of standard filters. With our new seal-free micronAir® Integrated Gasket Solution, Freudenberg Filtration Technologies has set a new standard in engine intake air filtration.



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