

AIR FILTER

GENUINE MINI PARTS

- ▶ **Specifically matched to every engine variant**
- ▶ **Optimal dust absorption capacity through embossed lugs in the filter paper**
- ▶ **With special resin-impregnated filter paper**
- ▶ **Optimal dust deposit degree up to 99%**
- ▶ **60,000 or 100,000 km optimal filter performance**
- ▶ **Temperature-resistant filter housing from fiberglass reinforced plastic**

FUNCTION IN DETAIL

Air filters ensure that the dust and dirt contained in the intake air are prevented from entering the engine and that the engine is always supplied with clean, sufficient quantities of air.

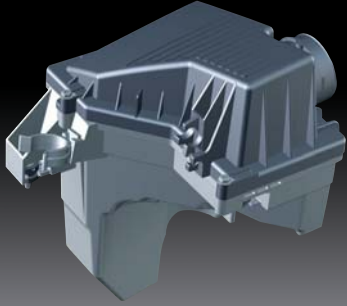
- The filter has to be matched exactly to the engine since the airflow volume, rate of flow, and the storage capability for dirt particles influence the engine performance as well as the cylinder and piston wear.
- Poor or uncleaned air leads to extensive damage in the engine. The dirt particles act like sandpaper on the pistons, cylinders and bearings. In extreme cases, this can lead to a total loss of the engine.
- Besides the job of filtering the intake air, the filter also has other important functions:
 - The intake air temperature and the crankcase exhaust are regulated.
 - Air filters influence the engine noise, the combustion process in the engine and the composition of the exhaust gases.

All this – besides a lower consumption – provides for a reduced environmental impact.

BENEFITS

Specifically matched to every engine variant. Genuine MINI Air Filters are exactly matched to every individual MINI engine. Filter capacity, air volume, air temperature and air flow through speed are exactly matched to every individual engine variant. These form a crucial requirement for the reduction of the intake noise, lower power loss, less loss of flow, undisturbed running combustion processes in the motor as well as economical consumption values and a reduction of the emissions.

Optimal dust absorption capacity through embossed lugs in the filter paper. The longer the air filter can filter dust particles out of the air, the longer it can remain installed in the vehicle. With air filters, embossed lugs maintain a gap in the paper folds (filter ash formation) and thus ensure an optimal filter dust absorption.



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With special resin-impregnated filter paper. For air filters, the filter paper is impregnated with a special high-grade resin so that the filter structure stays unsusceptible to temperature and moisture on a continuing basis, the moisture absorption is reduced and thus the full engine performance is ensured over the entire service life.

Optimal dust deposit degree up to 99%. The deposit degree defines the filter's ability to retain particles. The higher the deposit degree is, the better protected the engine is against wear. Through intelligent filter construction with their performance data exactly matched to the respective engine type, Genuine MINI Air Filters enable a dust separation efficiency of up to 99%.

60,000 or 100,000 km optimal filter performance. How long an air filter can be utilized is calculated by the capacity determined at the test stand and the dust concentration under "normal" driving. The dust concentration for a convoy on dirt roads amounts up to 0.2 g dust per m^3 , on normal roads approx. 0.003 g/m^3 and on highways or high quality roads only 0.001 g/m^3 . Due to their high storage capability, the filters can be utilized under normal driving from 60,000 to 100,000 kilometers!

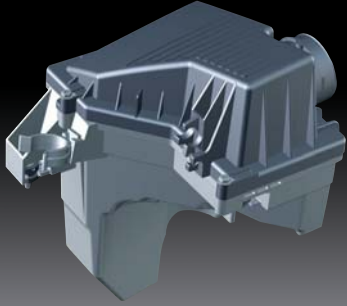
Temperature-resistant filter housing from fiberglass reinforced plastic. The filters have a very stable and light air filter housing made from fiberglass-reinforced plastic. This material is suitable for a temperature range from $-40^{\circ}C$ to $+80^{\circ}C$ (for short times even up to $+100^{\circ}C$) corresponding to the MINI specifications.

QUALITY ASSURANCE

Genuine MINI Air Filters make a major contribution to preserving the function of the engine. High-grade materials and processing techniques guarantee the quality requirements that every air filter has to fulfill. These are continually monitored and constantly further optimised in comprehensive series tests and strict checks.

Tested air flow rate. One of the many tests is the pressure loss measurement test. The air flows through the filter with a precisely defined amount of pressure. The measurement of the air pressure at the end of the filter tests the pressure loss in the filter: The smaller the pressure loss for the air flow through the filter, the better a continuous function of the engine performance is ensured.

Measurement of the filter performance. A defined amount of contamination of the specified test dust is continuously mixed with the air drawn in on the test stand. The pressure differential is evaluated in dependence on the amount of dust sucked in by the filter. The so-called fraction deposit degree measurement is checked, whether the required filter performance (filtering out of the smallest particles to a required percentage rate) and thus the air purity for an optimal engine performance is ensured.



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Aging measurements in continuous test. In order to guarantee the very high utilization times from 60,000 or 100,000 kilometers, the filter paper and the sealing foam are tested in a continuous test with regard to their temperature resistance and filter performance.

MAIN BENEFITS

- Matched to every MINI engine
- With special resin-impregnated filter paper
- Temperature- and moisture-resistant
- Optimal dust binding capacity and – deposit degree up to 99%
- 60,000 or 100,000 km optimal filter performance
- Filter housing from fiberglass reinforced plastic