

## Test 4

## Oil filter (petrol)



### Tests carried out


1. Test of physical properties
  - 1.1 Burst resistance as per DEKRA requirement
  - 1.2 Filter surface as per DEKRA requirement
  - 1.3 Bubble point as per DIN ISO 2942
  - 1.4 Lasting deformation as per PV 3307
  - 1.5 Pull test with breakage force in relation to width as per DIN ISO 1924-2
  - 1.6 Strength test as per NBR VW 2.8.1
  - 1.7 Collapse/burst pressure test in relation to width as per DIN ISO 2941
2. Material compatibility as per DEKRA environmental work instruction
3. Visual check of workmanship
4. Heavy metals as per end-of-vehicle directive

### Products tested

Oil filters for carburettor engines

1. Volkswagen Genuine oil filter  
item number 030 115 561 AB
2. purflux oil filter  
item number LS 325 D

### Test institute

DEKRA Umwelt GmbH  DEKRA  
Laboratory for environmental and product analysis, Stuttgart

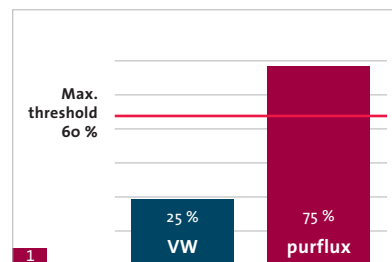
### Test period

27th July 2005 to  
16th September 2005

The best engine oil cannot fulfil its role in reducing wear, and thereby performance loss, if it is not cleaned effectively on a continual basis. Oil filters clean circulating oil of dust, metallic abrasion, oil carbons, soot particles, etc. so that only clean oil makes its way to the lubrication points and bearings.

### Summary and evaluation of test results

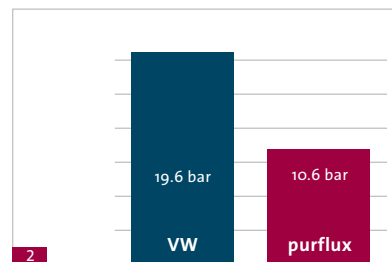
Apart from the softening behaviour or swelling (checked by way of the strength test), the physical properties of the purflux oil filter are in part considerably poorer than the Volkswagen Genuine oil filter.



The figure of the purflux oil filter clearly exceeds the maximum permissible threshold

#### Lasting deformation

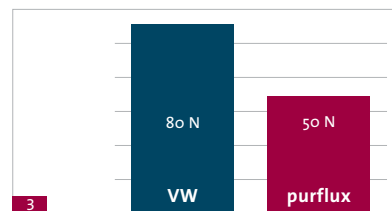
Particularly with regards to the leak test after 22 hour hot air storage, the purflux oil filter exceeds the maximum permissible threshold according to test regulation PV 3307 (fig. 1). The consequence could be leaks causing circulating oil to seep out of the oil filter.



In the burst pressure test, the purflux oil filter only withstood half as much pressure

#### Crack resistance

During the operating simulation, the burst test (fig. 2) also shows that the oil filter from purflux only withstands half the amount of pressure than that of the respective Volkswagen Genuine oil filter. The pull test with breakage force (fig. 3+4) led to a similar result.



In the pull test with breakage force, the filter paper of the purflux oil filter tore considerably faster than the Volkswagen oil filter



Test structure for pull test with breakage force

### Result

The purflux filter violates in one criteria a valid test regulation. This product is therefore not a comparable part with regards to quality according to the service partner contract. The purflux product tested is thus not the same in terms of quality.