

Automotive air conditioning systems

```
graph TD; A[Automotive air conditioning systems] --- B[Polyalkene Glycol (PAG) oil: Should be stored in an airtight container because it is hygroscopic and can absorb moisture from the air which will damage air conditioning systems]; A --- C[Flushing the air conditioning system: This is done to: • Remove foreign particles, moisture or sludge • To remove old oil from the system when retrofitting from R12 to R134a]; A --- D[Components to be replaced after a compressor failure or systems flush: • Compressor • Receiver dryer or accumulator • Thermal expansion valve or orifice]; A --- E[Equipment to find leaks in the air conditioning system: • Electronic leak detector • UV light with 7 coloured glasses • Manifold gauge hand set]; A --- F[Oil streaks in the receiver drier sight glass: • This indicates a complete loss of refrigerant];
```

Polyalkene Glycol (PAG) oil:

Should be stored in an airtight container because it is hygroscopic and can absorb moisture from the air which will damage air conditioning systems

Flushing the air conditioning system:

This is done to

- Remove foreign particles, moisture or sludge
- To remove old oil from the system when retrofitting from R12 to R134a

Components to be replaced after a compressor failure or systems flush:

- Compressor
- Receiver dryer or accumulator
- Thermal expansion valve or orifice

Equipment to find leaks in the air conditioning system:

- Electronic leak detector
- UV light with 7 coloured glasses
- Manifold gauge hand set

Oil streaks in the receiver drier sight glass:

- This indicates a complete loss of refrigerant