# TECHNICAL REPORT

Repair kit for Renault Zoe electric motor reference 77038500



#### **TECHNICAL REPORT**





## introduction

The new era of **vehicles powered by electric motors** bursts with force and covers an ever increasing percentage of the automobile fleet.

This type of propulsion supposes a change in depth with respect to what we knew with the alternative internal combustion engine. In the electric motor the number of moving parts and components decreases drastically.

Another of the factors that change is the **need for sealing**, these being more focused on the **protection of electronic components** against environmental agents. On the other hand, the electrical and electronic components generate high temperatures, which must be dissipated through the use of **coolants**, so this is another of the conditioning factors that play a key factor in sealing.





#### **TECHNICAL REPORT**



This is where **our electric motor repair** kit plays a key role, since it comes to solve a problem with the engine of the first generation RENAULT ZOE, code 5AM-450.

This motor designed by Continental has the peculiarity of **having brushes to transfer** the electrical voltage to the rotor.

These brushes, due to their operation, **tend to wear out** when in contact with the metal tracks of the rotor. They are mainly made of graphite, and the problem comes when this worn material becomes embedded in one of the rotor bearings, due to its proximity, making the motor starts to turn with greater difficulty.



In the long run, this generates a **higher temperature** in the area, which can deform the stator casing and to cause failure of the gasket that seals the engine cooling system, with this coolant reaching the stator area, and therefore both causing an insulation failure that prevents it from continuing to function



For these reasons it is common to have to repair the engine **by replacing the bearing**, and the gasket that is housed in that area.

Ajusa **offers one set for sale**, for the specific reparation of this breakdown, consisting of a bearing and an electric motor gasket.



## TECHNICAL REPORT



### set reference 77038500

