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# TECHNICAL REPORT

AjusEV, silicone sealant for  
electric vehicles. Needs & uses





# **ajusa**EV

ELECTRIC VEHICLE | VEHÍCULO ELÉCTRICO

## **01**

### INTRODUCTION

The **introduction of the electric vehicle** on the market entails the use of sealing materials focussed to the technical needs of the vehicle.

In this way, **Ajusa innovates every day** to offer our customers, products that help to repair the vehicle in certain circumstances, thus **helping the circular economy** and avoiding the complete replacement of components.

## 02

### PRODUCT DESCRIPTION

In the electric vehicle there may be certain repair circumstances which **require the application of determined chemical sealants** that safeguard the electronic components from inclement weather, and adequate seal behaviour.

AjusEV was born as a need to provide service in such circumstances. Thus, this special silicone is used for **repairs in electric vehicles**, which, thanks to its properties of form in place gasket, can reach a **correct sealing against external environmental agents**.



## 03

### APPLICATIONS

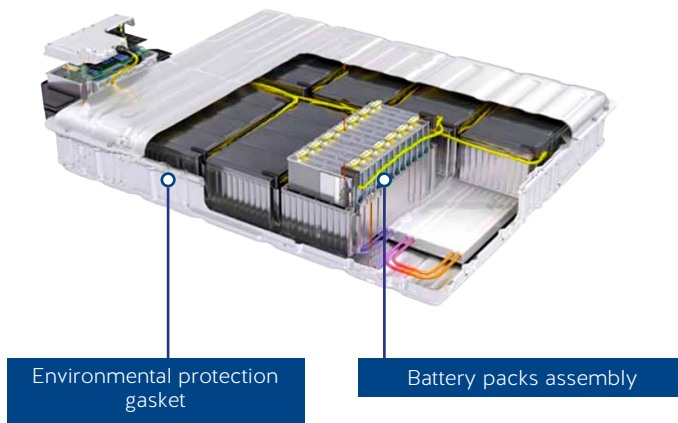
AjusEV focuses its use as an assembler thanks to its features as form in place gasket, in those repairs focused on the **battery area and in the power control unit (PCU)**.

## BATTERIES

Some battery modules repairation involves **opening the housing** where the battery group is located.

It may be the case that there is a physical seal, but normally these housings come from the factory with a **liquid silicone form** in place gasket.

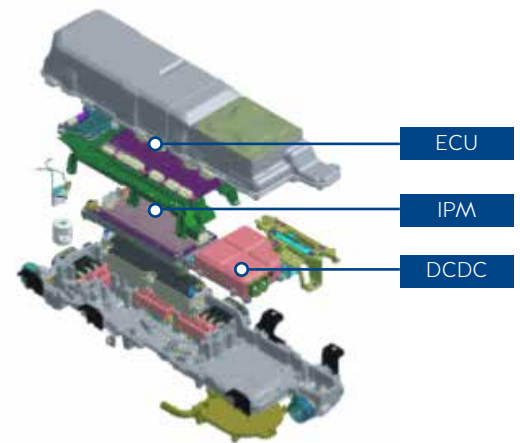
Car workshops are not equipped with special machines to apply this big liquid gasket, so **AjusEV** appears as the **perfect solution for the correct sealing** against external atmospheric agents and flexibility in the flange, without major complications.



## POWER CONTROL UNIT (PCU)

The integration, within this power unit of three different modules, means that **the heat transmissions are very high**, and therefore the need for cooling, which implies that the simplest sealing solution is the use of silicone in final assembly.

Thus, after repairs due to possible failures, not only in possible refrigeration leaks, but also when repair of the internal modules of the device is required, it will be necessary to **remove the previous silicone**, together with the consequent **replacement with AjusEV**.



ENVIRONMENTAL PROTECTION GASKET

## 04

### CHEMICAL CHARACTERISTICS

Appearance	Homogeneous creamy   white colour
Lift (ISO 7390)	< 5 mm
Training skin at 230/50% RH (ASTM C-679-71)	25-35 minutes
Curing speed at 23°C y 55% H.R	3mm / 24 hours
Application temperature	+5 a +50 °C
Appearance	Similar to rubber
Shore A hardness (ISO 868)	Approx. 60
Elastic Modulus 100% (ISO 37)	Approx. 1.8 MPa
Tensile strength (ISO 37)	Approx. 2.5 MPa
Elongation at break (ISO 37)	Approx. 260%
Resistance temperature operating	-50 to +270 °C
Occasional temperature resistance	+300 °C