Claims

1. Method for encapsulating electronic components mounted on a carrier comprising the processing steps of:

A) at least partially covering with a foil layer a contact side of a mould part, the covered part of the contact side of the mould part including at least one recessed mould cavity;

B) placing the carrier with electronic components between at least two mould parts of a mould of which at least one of the mould parts is at least partially covered with the foil layer;

C) moving the mould parts towards each other and clamping the carrier with electronic components between the contact sides of the mould parts, such that the foil layer is pressed onto the electronic components mould parts and the at least one mould cavity is enclosing the electronic components to be encapsulated;

D) bringing an encapsulating material in the mould cavity; and

E) moving the mould parts apart from each other, and removing the carrier with moulded electronic components from the mould parts,

wherein the foil layer facing the electronic components is impermeable for the moulding material and

wherein local foil layer displacement, due to the foil layer exerting local pressure onto the electronic components, is absorbed by foil layer expansion spaces that are provided in the foil.

2. Method for encapsulating electronic components according to claim 1, **characterised in that** local foil layer displacement is absorbed by a laminated foil layer with a surface layer facing the electronic components that is impermeable for the moulding material and a support layer including expansion spaces.

3. Method for encapsulating electronic components according to any of the foregoing claims, **characterised in that** local foil layer displacement is absorbed by foil layer expansion spaces provided in a surface layer of the contact side of a mould part.

4. Method for encapsulating electronic components according to claim 3, **characterised in that** the surface layer of the contact side of a mould part is detachable connected to a metal mould part basis.

5. Method for encapsulating electronic components according to any of the foregoing claims, **characterised in that** local foil layer displacement is absorbed by expansion spaces that are homogeneous distributed.

6. Method for encapsulating electronic components according to any of the claims 1 - 4, **characterised in that** local foil layer displacement is absorbed by expansion spaces that are irregularly distributed.

7. Method for encapsulating electronic components according to claim 6, **characterised in that** the expansion spaces density is larger there where the foil contacts the electronic components than there where the foil doesn't contact the electronic components.

8. Method for encapsulating electronic components according to any of the foregoing claims, **characterised in that** the expansion spaces are formed by a plurality of gas-filled holes.

9. Method for encapsulating electronic components according to claim 8, **characterised in that** the holes are closed off at least during enclosure of the electronic components by the at least one mould cavity.

10. Foil for encapsulating electronic components mounted on a carrier with the method according to any of the foregoing claims, wherein the foil is provided with expansion spaces and a contact surface of the foil layer configured for facing the electronic components is impermeable for the moulding material.

11. Foil for encapsulating electronic components according to claim 10, **characterised in that** the foil layer expansion spaces are formed by a plurality of gas-filled holes.

12. Foil for encapsulating electronic components according to claim 10 or 11, **characterised in that** the expansion spaces are closed off.

13. Foil for encapsulating electronic components according to any of the claims 10 - 12, **characterised in that** the foil layer is laminated, comprising a surface layer configured for facing the electronic components that is impermeable for the moulding material, and a support layer including expansion spaces.