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(54) **RUBBER RESIN MATERIAL WITH HIGH THERMAL CONDUCTIVITY AND HIGH DIELECTRIC CONSTANT AND METAL SUBSTRATE USING THE SAME**

(71) Applicant: **NAN YA PLASTICS CORPORATION**, Taipei (TW)

(72) Inventors: **Te-Chao Liao**, Taipei (TW); **Hung-Yi Chang**, Taipei (TW); **Hao-Sheng Chen**, Taipei (TW); **Chia-Lin Liu**, Taipei (TW)

(73) Assignee: **NAN YA PLASTICS CORPORATION**, Taipei (TW)

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Primary Examiner — Mark Eashoo
Assistant Examiner — Caitlin Norine Illing
(74) *Attorney, Agent, or Firm* — Li & Cai Intellectual Property Office

(57) **ABSTRACT**

A rubber resin material with a high thermal conductivity and a high dielectric constant and a metal substrate using the same are provided. The rubber resin material includes a rubber resin composition, at least one first inorganic filler, and at least one second inorganic filler. The rubber resin composition includes 30 wt % to 60 wt % of a liquid rubber, 10 wt % to 30 wt % of a polyphenylene ether resin, and 20 wt % to 40 wt % of a crosslinker. A molecular weight of the liquid rubber ranges from 2500 g/mol to 6000 g/mol. The at least one first inorganic filler is selected from the group consisting of aluminum oxide, boron nitride, magnesium oxide, zinc oxide, aluminum nitride, silicon carbide, and aluminum silicate. The at least one second inorganic filler is selected from the group consisting of silica, strontium titanate, calcium titanate, and titanium dioxide.

11 Claims, 1 Drawing Sheet