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China

Different Decision on the Validity of DUPONT's Patent in Taiwan and China- Taimide Tech. Inc. v DUPONT Electronics, Inc.

Polyimide is an indispensable material in high-tech application such as flexible OLED displays, 5G antennas materials and heat dissipation structures of electronic devices. DUPONT Electronics, Inc. sued Taimide Tech. Inc. for the infringement of its polyimide related patent in Taiwan and China, and Taimide therefore raised an invalidation request against the patent. The patent no. TWI519576 (the TW'576 patent) in Taiwan was examined valid by the Taiwan Intellectual Property Court (*Taiwan Intellectual Property Court 2019 Mingzhuansuzi No. 68 Judgment*), but the patent no. CN103788652B (the CN'652B patent) in China, within the same family as the TW'576 patent, was decided invalid by the Chinese Patent Reexamination Board. Though the claims of the CN'652B patent are not completely same as the TW'576 patent, they are in the same patent family. It is worthy to note that the fates of these two patents in different countries are totally different.

The technical features in claim 1 of the TW'576 patent

A base film comprising:

A. a chemically converted polyimide in an amount from 71 to 96 weight percent of the base film, the chemically converted polyimide being derived from:

a. at least 50 mole percent of an aromatic dianhydride, based upon a total dianhydride content of the polyimide, and

b. at least 50 mole percent of an aromatic diamine based upon a total diamine content of the polyimide;

B. a carbon black present in an amount from 2 to 9 weight percent of the base film; and

C. a polyimide particle matting agent; wherein the base film has a dielectric strength greater than 1400 V/mil.

Main Point of Argument

The technical features A, B, and C in claim 1 of the TW'576 patent have been respectively disclosed by prior arts. Only the technical feature D, the base film having a dielectric strength greater than 1400 V/mil, has not been disclosed by any prior art. Taimide claimed that the base film having a dielectric strength greater than 1400 V/mil is a certain property resulting from the technical features of A, B, and C. According to the content of evidence A5 and A6, it is a prior art that the polyimide has a high dielectric strength. Thus, the polyimide film which is manufactured by combining said evidence should have a dielectric strength greater than 1400 V/mil.

The Taiwan IP Court's Opinion

The Taiwan IP Court dismissed Taimide's complaint that:

(1). The main purpose of the evidence 2,4,5,7 and A3 is to improve the features of opacity and adhesion property of the polyimide film, at the same time teaching or suggesting that the composition of the polyimide film may be adjusted to meet a dielectric strength greater than 1400 V/mil. However, Taimide did not provide the evidence to prove that "a combination of the technical features A, B and C would also lead to the property of the technical feature D" is the general knowledge in the art. It is difficult to state that a person ordinarily skilled in the art can accomplish the invention of claim 1 in the TW'576 patent based on the combination of evidence.

(2). "The base film has a dielectric strength greater than 1400 V/mil (i.e., said technical feature D)" is a limitation that can substantially correspond to the constrained specific composition of the base film (e.g., amount of the matting agent). Moreover, according to the examples and the comparative examples drafted in the TW'576 patent, a polyimide film comprising high amount of matting agent (e.g., higher than 30 wt%) would not result in a dielectric strength greater than 1400 V/mil as the technical feature D defines. For example, the comparative example 6 meets (or corresponds to) the technical features A, B and C, but the amount of matting agent is so high (30 wt%) that the dielectric strength is only 813V/mil, which does not meet the technical feature D. Thus, the technical feature D is not a certain property of a polyimide base film that meets (or corresponds to) the technical features A, B and C.

Collectively, the court deemed that the combination of evidences 2-7 (the combination of 2, 4 and 5; the combination of 2, 4 and 7; the combination of 2, 4 and A3) were insufficient to prove that claim 1 of the TW'576 patent lacked an inventive step.

Wisdom Suggested Strategies

The reason why Taimide failed to invalidate the TW'576 patent was that not only with the failure to find any prior art disclosing the technical feature D, Taimide tried to combine various evidence to constitute the grounds for invalidity, which made the inference of the disclosure of the technical feature D was deemed far-fetched.

In the field of chemistry, it is difficult to know or to predict the property of the product without actual manufacture and measurement. In this case, each elements of claim 1 in the TW'576 patent was mosaicked by different disclosure in different evidences. That is, no prior art could demonstrate that based on the same ingredients as claim 1 of the TW'576 patent, the same base film could be produced, unless the ingredients of the features B and C are additives that simply confer the properties owned by themselves and could not induce interaction among the ingredients, and therefore contribute no change to the base film property. Therefore, it was difficult to claim that the dielectric strength of the feature D was a certain consequence. Taimide Tech. Inc. has filed an appeal against this case to the Taiwan Supreme Administrative Court, and the civil lawsuit of patent infringement involving the same case is still on trial by the Taiwan IP Court. It is worthy to pay attention on an update about the case.