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**Datasheet for the decision
of 23 July 2021**

Case Number: T 1291/18 - 3.2.04

Application Number: 10708414.7

Publication Number: 2408290

IPC: A01C1/06

Language of the proceedings: EN

Title of invention:
SEED COATING COMPOSITION

Patent Proprietor:
INCOTEC Europe B.V.

Opponent:
Syngenta Crop Protection AG

Headword:

Relevant legal provisions:
EPC Art. 83

Keyword:
Sufficiency of disclosure - (no)

Decisions cited:

Catchword:



Beschwerdekammern
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Case Number: T 1291/18 - 3.2.04

D E C I S I O N
of Technical Board of Appeal 3.2.04
of 23 July 2021

Appellant: Syngenta Crop Protection AG
(Opponent) Rosentalstrasse 67
4058 Basel (CH)

Representative: SYNGENTA IP
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Respondent: INCOTEC Europe B.V.
(Patent Proprietor) Westeinde 107
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Representative: Karfopoulos, Alexis Theo
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Decision under appeal: **Interlocutory decision of the Opposition
Division of the European Patent Office posted on
28 March 2018 concerning maintenance of the
European Patent No. 2408290 in amended form.**

Composition of the Board:

Chairman A. de Vries
Members: S. Hillebrand
C. Heath

Summary of Facts and Submissions

I. The appeal was filed by the Opponent against the interlocutory decision of the Opposition Division finding that the patent as amended according to auxiliary request 1 met the requirements of the EPC.

In particular, the Opposition Division held that the patent disclosed the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

II. In a communication pursuant to Rule 15(1) RPBA, the Board expressed the preliminary opinion that the patent did not disclose the invention as defined by claim 1 in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.

III. Oral proceedings were held before the Board in the form of a videoconference with all parties attending.

IV. The Appellant requests that the patent under appeal be set aside and that the patent be revoked.

The Respondent requests that the appeal be dismissed (Main Request), or that the patent be upheld on the basis of Auxiliary Request A1 filed with letter dated 20 December 2018.

V. Independent claim 1 of the main request reads as follows:

"Seed coating composition comprising water and at least 35 wt.% by weight of the seed coating composition of inorganic particles, wherein the mean particle size (D50) of said inorganic particles as measured by laser

obscuration time technology is 250 µm or less, wherein the mean particle size (D50) refers to the numerical value, expressed in microns, at which 50 percent of the mass percentage of the particles have particle sizes which are less than or equal to that value, and where the seed coating further comprises a binder."

Claim 1 of the auxiliary request differs from claim 1 according to the main request in that the binder is specified as being "*selected from a group consisting of polyvinyl alcohol, polyvinyl acetate, acrylate, and polyurethane*".

VI. In the present decision, reference is made to the following document:

D9: Annex 1, submitted by the Respondent during opposition proceedings,

D10: Annex 2, submitted by the Respondent during opposition proceedings,

D19: "EyeTech" analyzer brochure, Ankersmid

VII. The Appellant's arguments can be summarised as follows: It is not disclosed in the patent specification how a mass based mean particle size (D50) according to claim 1 could be measured by means of the claimed laser obscuration time (so-called "LOT") technology.

The Respondent's arguments can be summarised as follows:

A skilled user of the Ankersmid EyeTech LOT analyzer mentioned in paragraph [0053] of the patent specification and subject of D19 is able to derive the claimed mass based D50 value of a given composition from the results obtained by means of the analyzer.

Reasons for the Decision

1. The appeal is admissible.

2. **Background**

The patent deals with seed coatings. Such coatings are applied to avoid dusting, to smoothen the seed surface and/or provide the seed with plant protection agents or nutrients. The formulation of the seed coating is critical, since it tends to render the coated seeds sticky (see paragraph [0003] of the patent specification).

In order to obtain better flow characteristics of coated seeds, the invention as defined in claim 1 proposes a seed coating composition comprising at least 35 wt% of inorganic particles having a "mean particle size (D50) ... measured by laser obscuration time technology" of 250 μm or less, meaning that the particles of half of particle mass must not be larger than 250 μm . This is in fact a definition of the *median* particle size rather than a mean or *average* particle size in the conventional sense, and the claim is thus understood as referring to such a median value. "Laser obscuration time" or LOT is a term employed by Ankersmid Ltd, which produces the EyeTech Particle Size Analyzer mentioned in paragraph [0053] of the patent and shown in D19, for a technology otherwise known as "single particle optical sizing" or SPOS. LOT (or SPOS) is based on detecting light blocking, light obscuration or light extinction caused by particles when they pass a light source, e.g. a laser, and allows for rather accurate size, volume and shape determination for individual particles, see paragraph [0053] of the

patent specification and page 3 of D19.

3. **Sufficiency of disclosure**

3.1 A conventional method for obtaining a *mass* based particle size distribution, e.g. of naturally occurring sediments, is sieving and weighing. Particle size distribution of (coating) compositions analysed by optical methods such as LOT or SPOS are usually expressed in number or *volume* percentage, as on page 3 of D19. Indeed in the Board's understanding this technique is based on measuring the *size* of each individual particle, which is directly related to the time during which it obscures a laser beam. From this measurement a distribution of the (relative) number or frequency of particles as a function of particle size is obtained. Under certain assumptions of 3D shape this can be converted into a volumetric distribution, giving the (relative) volumes of particles as a function of particle size.

The Board sees confirmation of this view in D19, page 3. Although D19 is a marketing brochure and not a full technical specification for the EyeTech analyzer, as pointed out by the Respondent, it describes in detail the wide range of capabilities of the analyzer. However, it does not mention the possibility of determining *mass* based values. It appears to be unlikely that such a special and uncommon capability as that of *mass* based analysis would be left unmentioned, if present.

3.2 The example seed coating compositions presented in the patent specification (at least those in which the inorganic particles are identified) and in the annexes with experimental evidence D9 and D10 contain only one

type of inorganic particles.

Claim 1 of the main request and of auxiliary request 1 encompasses, however, mixtures of different inorganic particles, such as silicate, carbonate and sulphate particles (claim 2), each having a different mass density ranging from over 4 g/cm³ for barium sulphate to less than 1 g/cm³ for pumice (paragraph [0015] of the patent specification).

- 3.3 For compositions comprising only one type of inorganic particles having basically the same mass density, a *mass* based particle size distribution can easily be derived from the *volume* based particle size distribution on the basis of the single mass density value.

In this case, a person skilled in the art could thus obtain a *mass* based D50 value by means of LOT technology, even if the latter would strictly speaking only establish a *volume* based particle size distribution.

- 3.4 However, the patent specification is silent about the way in which a *mass* based particle size distribution can be established by LOT technology for a *mixture* of different types of inorganic particles having different mass densities. According to the Respondent, the analysis is carried out with the prepared seed coating composition in liquid form comprising all inorganic particles (see corresponding statements of the Respondent on page 5, fourth paragraph and page 6, first paragraph of the impugned decision and on page 3, first paragraph of their reply to the appeal).

Still, it is not clear to the Board how an optical LOT

analyzer could differentiate between an inorganic particle of a first type having a first density and another inorganic particle of a second type having a second density, if both are contained in a liquid seed coating composition to be analyzed. Such differentiation appears to be necessary not only for determining the *volume* of every single particle of the composition, but also its individual *mass*, which in turn appears to be a prerequisite for the LOT analyzer to determine a *mass* based D50 value of the composition. Nor is mass determination mentioned in D19, nor did the Respondent provide a plausible explanation how this could be obtained based on the principles of the optical LOT technology. The Respondent invoked further technical specifications of the EyeTech analyzer, which would demonstrate the analyzer's capability to establish a *mass* based particle size distribution or D50 value, but did not submit those in support of their allegations.

In the absence of any example or further explanations or supporting evidence, the Board is unable to agree with the Respondent's statement that this would fall under the normal skills of the person skilled in the art.

- 3.5 In the light of the above, the Board can but conclude that the skilled person cannot derive from the patent supplemented by their common general knowledge in the field of particle size measurement how a mass based particle size distribution and corresponding D50 value can be determined for a seed coating composition comprised of a mixture of inorganic particles of different types and different densities using LOT technology. This means that for such mixtures, which are clearly considered in the patent and covered by its

claims, the claimed invention is insufficiently disclosed.

For the above reasons, the Board finds the patent does not disclose the invention as defined in the main request and in auxiliary request 1 in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art, Article 83 EPC.

4. **Conclusion**

With their appeal, the Opponent has successfully challenged the findings of the Opposition Division according to which the invention as defined in the main request was sufficiently disclosed in the sense of Article 83 EPC. Consequently, the Opposition Division's interlocutory decision to maintain the patent in the amended form of the main request cannot be upheld. The amendments made in auxiliary request 1 lead to no different conclusion and the patent does not meet the requirements of Article 83 EPC, either, thus leading to the revocation of the patent under Articles 101(3)b), 111(1) EPC.

Order

For these reasons it is decided that:

1. The decision under appeal is set aside.
2. The patent is revoked.

The Registrar:

The Chairman:



G. Magouliotis

A. de Vries

Decision electronically authenticated