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Datasheet for the decision of 14 June 2022

Case Number: T 0050/20 - 3.2.01

Application Number: 15155486.2

Publication Number: 2907404

IPC: A43B5/04

Language of the proceedings: EN

Title of invention:
Sport footwear and outer shell therefor for winter sports and corresponding production method

Patent Proprietor:
Calzaturificio dal Bello S.R.L.

Opponent:
Fischer Sports GmbH

Headword:

Relevant legal provisions:
EPC Art. 52(1), 56

Keyword:
Inventive step - obvious alternative (yes) - reasonable expectation of success (yes)

Decisions cited:

Catchword:

Europäisches Patentamt
European Patent Office
Office européen des brevets

Beschwerdekammern

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Case Number: T 0050/20 - 3.2.01

D E C I S I O N
of Technical Board of Appeal 3.2.01
of 14 June 2022

Appellant: (Opponent)	Fischer Sports GmbH Fischerstraße 8 4910 Ried/Innkreis (AT)
Representative:	SONN Patentanwälte OG Riemergasse 14 1010 Wien (AT)
Respondent: (Patent Proprietor)	Calzaturificio dal Bello S.R.L. Via Frattalunga 12 31011 Casella d'Asolo (TV) (IT)
Representative:	Petraz, Gilberto Luigi GLP S.r.l. Viale Europa Unita, 171 33100 Udine (IT)
Decision under appeal:	**Decision of the Opposition Division of the European Patent Office posted on 2 December 2019 rejecting the opposition filed against European patent No. 2907404 pursuant to Article 101(2) EPC.**

Composition of the Board:

Chairman	G. Pricolo
Members:	V. Vinci
	S. Fernández de Córdoba

Summary of Facts and Submissions

I. The appeal filed by the appellant (opponent) is directed against the decision of the opposition division to reject the opposition and to maintain the European patent No. 2 907 404 as granted.

In its decision the opposition division held that neither of the grounds of opposition under Article 100(a) in combination with Article 56 EPC and Article 100(c) in combination with Article 123(2) EPC raised by the appellant (opponent) was prejudicial to the maintenance of the patent as granted. In particular the opposition division found that the subject-matter of independent claims 1, 9 and 12 as granted involved an inventive step over the following prior art:

E1: WO 2012/092638 A2

II. With the communication according to Rule 100(2) EPC dated 25 January 2021 the Board informed the parties of its preliminary assessment of the case.

Oral proceedings pursuant to Article 116 EPC were held before the Board on 14 June 2022 per videoconference (VICO) with the consent of the appellant (opponent) and in absence of the respondent (patent proprietor) that had announced with the letter dated 05 May 2022 that they will not attend.

III. The appellant (opponent) requested that the decision under appeal be set aside and that the European patent be revoked.

The respondent (patent proprietor) had not filed

written submissions on the substance of the case.

IV. Independent claim 1 as granted reads as follows:

"Outer shell for a sport footwear, characterized in that at least part of said outer shell is made of a polymer mixture comprising at least one toughened polyolefin and at least one ionomeric polymer."

Reasons for the Decision

Inventive Step: Articles 52(1) and 56 EPC

1. Contrary to the assessment of the opposition division the subject-matter of independent claim 1 as granted does not involve an inventive step over the prior art in the meaning of Articles 52(1) and 56 EPC.

1.1 There is agreement that document E1 represents the closest prior art for the subject-matter of claim 1, and that it cannot be directly and unambiguously derived therefrom that the thermoplastic mixture of the outer shell of the sport footwear disclosed therein comprises, among others, *"at least one toughened polyolefin"*.

In fact, as correctly pointed out by the appellant (opponent), the known mixture comprises caprolactam-polyamide as main component mixed with an ionomeric polymer (see page 7 of E1, second paragraph from the bottom) to which a percentage of a thermoplastic rubber can be optionally added (see page 7 of E1, last

paragraph).

1.2 The Board shares the view of the appellant (opponent) that the problem addressed by the contested patent, i.e. to obtain an outer shell for a sport footwear which is easy to model and hence to adapt to the user's foot at temperatures below 100°C while at the same time keeping mechanical properties allowing sufficient resistance to impacts and scratches during use (see paragraph [0038] of the contested patent), is already solved in E1 in the same way as in the contested patent, namely by mixing the base material (in the case of E1 caprolactam-polyamide) with an ionomeric polymer (see claim 1 and fourth paragraph on page 4 of E1), the ionomeric polymer having the desired effect of lowering the thermoforming temperature of the shell.

1.3 Consequently, as stated by the opposition division and shared by the appellant (opponent), starting from E1 the technical problem underlying the contested patent is to propose an alternative thermoplastic mixture suitable to be used in the shell of a sport footwear achieving the same technical effect as in the closest prior art, i.e a sufficient thermoformability at temperatures below 100 C°.

1.4 The opposition division correctly acknowledged that polyurethanes, polyether-polyamides and toughened polyolefins are the three most commonly materials used in the manufacture of outer shells for sport footwear. In particular it is well known that toughened polyolefins are advantageously preferred in view of their comparatively low cost and density combined with high resistance to impacts even at low temperatures. As pointed out by the appellant (opponent), this common technical knowledge is confirmed by the contested

patent itself, see paragraphs [0020] to [0036]. On the other hand toughened polyolefins suffer, as it is also generally known to those skilled in the art, of the same drawback as the polyamide used in E1, namely reduced thermoformability at temperatures below 100 C° (see second sentence of paragraph [0034] of the patent). In view of all the above, the Board shares the view of the appellant (opponent) that the person skilled in the art aiming to provide an alternative thermoplastic mixture for the outer shell disclosed in E1 would be motivated, in particular by the expected advantages in terms of reduced material costs and high resistance to impacts, to replace the caprolactam-polyamide of the known outer shell by the commonly used toughened polyolefin, which is one of the only two remaining materials commonly used for this kind of applications, thereby arriving, without inventive step, to the subject-matter of claim 1.

1.5 In the decision under appeal the opposition division argued (see page 9 onwards) that the person skilled in the art would not be motivated to replace the polyether-polyamide (caprolactam-polyamide) of the thermoplastic mixture of E1 by a toughened polyolefin as the latter does not have the same properties as a polyether-polyamide and hence would not necessarily interact with the other components of the resulting thermoplastic mixture in the same way and in the same proportions as the polyether-polyamide component. In other words it is alleged that it would not be obvious for the skilled person starting from E1, even taking into account their common general knowledge, that the resulting modified thermoplastic mixture comprising a toughened polyolefin and at least one ionomeric polymer would have the same advantageous effects in terms of

thermoformability at temperatures below 100 °C.

1.6 This argument is not convincing for the following reasons:

The Board agrees with the appellant (opponent) that the above allegation of the opposition division is unsubstantiated. From document E1 (see page 4, second to fourth paragraph cited by the appellant (opponent)) the person skilled in the art unambiguously derives that the effect of increasing the thermoformability of the shell at temperatures below 100°C is determined only by the ionomeric polymer which represents indeed the softening component of the thermoplastic mixture. No particular interaction with the base component, i.e. with the caprolactam-polyamide, contributing to the desired lowering of the thermoplastic temperature is required and/or takes place. This knowledge is confirmed by the patent itself (see paragraph [0084]) as correctly pointed out by the appellant (opponent). Therefore the person skilled in the art, contrary to the view of the opposition division, has no reasons to suspect that by replacing in the thermoplastic mixture of E1 the caprolactam-polyamide by a toughened polyolefin the softening effect would be lost. In fact the Board is convinced that it is indeed the ionomeric polymer to provide increased thermoformability at temperature below 100°C. This is also demonstrated by the fact that according to contested patent this component may be present in the thermoplastic mixture of the outer shell up to a percentage of 95% (see paragraph [0049]). In conclusion, as convincingly argued by the respondent (opponent) and contrary to the unsubstantiated allegation of the opposition division, the person skilled in the art would have a "*reasonable expectation of success*" that the replacement of the

caprolactam-polyamide of the thermoplastic mixture of E1 by a toughened polyolefin would produce the same advantages in terms of increasing of the thermoformability of the material of the shell, whereby he/she would be motivated (rather than discouraged) to carry out this modification of the prior art's outer shell without any concern.

1.7 The opposition division further argued (see page 9 of the contested decision, second paragraph) that the working context of E1 is rather specific to winter ski footwear produced by injection molding technique with thermoplastic polymers selected out of polyurethanes and polyether-polyamides which are adapted to high performance winter sport's footwear (see E1, page 1, third paragraph onwards). It is thus alleged that the skilled person starting from E1 and trying to solve the posed technical problem would not consider a solution directed to high performance winter sport's footwear to the entry level winter sport's footwear for recreational purposes to which the contested patent is directed.

1.8 Also this argument is not convincing because, as explained above, toughened polyolefins are characterized by, and well known for, a comparatively low cost. For this very reason the person skilled in the art would be motivated to use such a cheaper material for the manufacture of comparatively less expensive entry-level recreational sport footwear.

1.9 In conclusion, contrary to the assessment of the opposition division, the Board concludes that the subject-matter of claim 1 as granted is rendered obvious by the disclosure of document E1 in view of

common general knowledge.

2. In view of the above an assessment of the further issue raised by the appellant (opponent) under Article 123(2) EPC is not required.

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:

A. Vottner G. Pricolo

Decision electronically authenticated