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Datasheet for the decision of 20 January 2020

Case Number: T 1714/15 - 3.3.09

Application Number: 01941175.0

Publication Number: 1296830

IPC: B32B27/34, B29C71/02

Language of the proceedings: EN

Title of invention:
LOW-TEMPERATURE IMPACT-RESISTANT POLYAMIDE-BASED STRETCH-ORIENTED MULTILAYER FILM

Patent Proprietor:
Kureha Corporation

Opponent:
Isarpatent

Headword:
Low-temperature impact-resistant poylamide-based stretch-oriented multilayer film/KUREHA

Relevant legal provisions:
EPC Art. 83, 123(2)

Keyword:

Amendments - extension beyond the content of the application as filed (yes) (Main request)
Sufficiency of disclosure - enablement over the whole lifetime of the patent - auxiliary request (no)

Decisions cited:

T 1293/13, T 2037/18

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Case Number: T 1714/15 - 3.3.09

D E C I S I O N
of Technical Board of Appeal 3.3.09
of 20 January 2020

Appellant: (Opponent)	Isarpatent Patent- und Rechtsanwälte Friedrichstrasse 31 80801 München (DE)
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Respondent: (Patent Proprietor)	Kureha Corporation 3-3-2, Nihonbashi-Hamacho, Chuo-ku Tokyo 103-8552 (JP)
Representative:	Adam, Holger Kraus & Weisert Patentanwälte PartGmbB Thomas-Wimmer-Ring 15 80539 München (DE)
Decision under appeal:	**Interlocutory decision of the Opposition Division of the European Patent Office posted on 9 July 2015 concerning maintenance of the European Patent No. 1296830 in amended form.**

Composition of the Board:

Chairman	A. Haderlein
Members:	F. Rinaldi
	F. Blumer

Summary of Facts and Submissions

I. This decision concerns the appeal filed by the opponent (appellant) against the interlocutory decision of the opposition division that European patent No. 1 296 830 as amended met the requirements of the EPC.

II. In its notice of opposition, the opponent had requested the revocation of the patent on the basis of Article 100(a) (lack of novelty and lack of inventive step), 100(b) and 100(c) EPC.

The documents submitted during the opposition proceedings included:

D38: ASTM D 3763-86 ("Standard test method for high speed puncture properties of plastics using load and displacement sensors")

D53: Affidavit (Ichiro Kitada) including exhibits 1, 2 and 2a and attachments 1 and 2

III. During the opposition proceedings, and by letter dated 20 March 2015, the patent proprietor filed a main request comprising 14 claims, including an amended claim 1. This remained its main request on appeal. Claim 1 reads as follows:

"*A stretch-oriented multilayer film, comprising at least three layers including a surface layer (a) comprising a thermoplastic resin other than polyamide resin, an intermediate layer (b) comprising a polyamide resin and a surface layer (c) comprising a sealable resin, said multilayer film exhibiting an impact energy of at least 1.5 Joule at a conversion thickness of*

50 µm at -10°C, wherein the impact energy is determined at -10°C according to ASTM D3763-86:

(i) in an environment of -10°C, a sample of stretch-oriented multilayer film cut into a square of 10 cm x 10 cm is disposed horizontally and sandwiched between a pair of clamps each having a 3.8 cm-dia. circular opening with its surface layer (a) directed upwards,
(ii) onto the sample film at the opening, a plunger of 4 kg in weight and having a hemispherical tip portion of 1.27 cm in diameter is dropped at a speed of 333.33 cm/sec to measure a load applied to the dropping plunger and a displacement by a sensor from which a displacement-load curve is obtained,
(iii) based on the curve, a maximum load until the breakage is read as an impact strength (F_{IP} (N), and an energy absorbed by the film until the breakage is calculated to obtain an impact energy (E_{IP} (J)),
(iv) five sample films from each product film are subjected to the above measurement, and the average values are taken as measured values,
(v) based on the above-measured impact energy (E_{IP} (J)) for a sample having a thickness t (µm), an impact energy normalized at a thickness of 50 µm (E_{IP50} (J)) is calculated according to the following equation:

$$E_{IP50}\ (J) = E_{IP}\ (J) \times (50/t).$$"

In the decision under appeal, the main request was found to be allowable. In particular, the opposition division considered that claim 1 of the main request did not include added subject-matter, although only the method ASTM D3763-86 - and not the apparatus disclosed in combination with it in the application as filed - had been added to its wording. In its view, the test

results D53 showed that the choice of test apparatus did not lead to a significant change in the impact energy value measured. Moreover, a specific tester type was not normally recited in a claim.

IV. In its reply to the statement setting out the grounds of appeal, the patent proprietor (respondent) filed auxiliary requests 1 to 13.

The following aspects of claim 1 of each of these requests are relevant:

Main request and auxiliary requests 1, 2 and 6
Claim 1 of the main request (point III) is identical to claim 1 of each of auxiliary requests 1, 2 and 6.

Auxiliary requests 3 to 5
Claim 1 of each of auxiliary requests 3, 4 and 5 is based on claim 1 of the main request; however, after the term "ASTM D3763-86", the term "using DROP-WEIGHT TESTER RTD-5000 available from Rheometrics, Inc." was added.

Auxiliary requests 7 to 13
The precise wording of claim 1 of each of these requests is not relevant. The wording comprises the term "ASTM D3763-86", but the feature "DROP-WEIGHT TESTER RTD-5000 available from Rheometrics, Inc." is omitted, as in claim 1 of the main request.

The respondent also filed, *inter alia*, the following:

D60: Google search result: "Rheometrics 'RTD 5000'"
D61: T. M. Liu et al, "Instrumented Dart Impact Evaluation of Linear Low Density Polyethylene

at Controlled Impact Energy", Polymer engineering and science, 31(10), 1991, 753-763

D62: M. E. Woods et al, "Increasing the impact resistance of short glass fiber reinforced vinyl composites", in: "Automotive composites conference", 19-20 September 2001 (4 pages)

V. The appellant's arguments which are relevant to the present decision may be summarised as follows.

Main request - added subject-matter

Amended claim 1 encompassed added subject-matter. The norm ASTM D3763-86 (i.e. D38) was disclosed in the application as filed only in combination with the test apparatus used (DROP-WEIGHT TESTER RTD-5000), and therefore these two features had to be included in amended claim 1. It was evident for example from D53 that different test apparatuses provided different results and from D38 that the test apparatus had an impact on the reproducibility of the results.

Auxiliary request 3 - sufficiency of disclosure

The invention as described in claim 1 of auxiliary request 3 was not sufficiently disclosed. The test apparatus "DROP-WEIGHT TESTER RTD-5000 available from Rheometrics, Inc." had in fact never been available, because the designation of the apparatus was incorrect. Moreover, it was evident that the invention was not sufficiently disclosed throughout its lifetime. Decision T 1293/13 was referred to in this context.

VI. The respondent's arguments which are relevant to the present decision may be summarised as follows.

Main request - added subject-matter

The skilled person would understand from D38 that the apparatus used for measuring the parameter had to be modified as indicated in the application as filed on page 33, lines 23 ff. However, the type of the apparatus used for measuring the parameter was not important. D38 simply required that any deviation from the standard test method regarding the apparatus features be highlighted in the report and that the apparatus used be mentioned. This had been done in the application as filed. D53 demonstrated the soundness of the impact energy range and the method for measuring it in claim 1. Moreover, it was unnecessary to recite a commercial apparatus in a claim.

Auxiliary request 3 - sufficiency of disclosure

In the application as filed, an incorrect designation of the apparatus had been used (the correct designation being DROP-WEIGHT TESTER RDT-5000). However, the skilled person would immediately know the correct designation. Evidence for this could be found in D60 to D62. Although the apparatus with the correct designation was no longer available, it had been available at the date of filing and at the priority date of the patent in suit, as shown by D62.

VII. The final requests were as follows:

The appellant requested that the decision under appeal be set aside and the patent be revoked in its entirety.

The respondent requested that the appeal be dismissed (main request) or, alternatively, that the patent be maintained on the basis of the claims of any of auxiliary requests 1 to 13, all as filed with the reply to the statement setting out the grounds of appeal.

Reasons for the Decision

1. *Main request - added subject-matter*

1.1 The parties disagreed as to whether the feature "at -10°C according to ASTM D3763-86" recited in claim 1 of the main request complied with the requirements of Article 123(2) EPC.

According to the appellant, this feature was disclosed in the application as filed only on page 33, line 20, and only in conjunction with the apparatus used for the measurement, i.e. "DROP-WEIGHT TESTER RTD-5000 (available from Rheometrics, Inc.)" (lines 21 to 22).

In the respondent's view, the feature "at -10°C according to ASTM D3763-86" could be added to claim 1 without including the aforementioned specific apparatus.

1.2 In the application as filed (page 33, lines 11 to page 34 line 19), the following is stated in the context of the method for measuring the claimed impact energy:

> "*Hereinbelow, the present invention will be described more specifically based on Examples and Comparative Examples ... Some physical properties described herein are based on values measured according to the following methods.*
> *< Physical property measurement methods >*
> *1. Impact strength and energy*

Measured at -10°C according to ASTM D3763-86 by using "DROP-WEIGHT TESTER RTD-5000" (available from Rheometrics, Inc.)
More specifically, in an environment of -10°C, ..."

1.3 It is manifest from this disclosure that for measuring the impact energy and for calculating the impact energy normalised at a thickness of 50 µm, which defines the scope of claim 1, the standard test method and the specific drop-weight tester apparatus are used in combination.

1.4 There is no doubt that ASTM D3763-86 (in the following also referred to as "D38") is a standard which is in principle designed to be used with different apparatuses. But this is not what matters here. What needs to be decided is whether the skilled person, using their common general knowledge, would directly and unambiguously derive from the application as filed that, in the method of measuring the impact energy in claim 1, it is not mandatory to use the DROP-WEIGHT TESTER RTD-5000.

1.5 To support its argument that omitting the test apparatus was allowable, the respondent argued that the skilled person would understand from D38, in particular from section "4. Apparatus", that any apparatus could be used for measuring the impact energy. D38 simply required that any deviation from the standard test method regarding the apparatus features be highlighted in the report. The respondent had done this by denoting in claim 1 the clamp assembly used in the application as filed ("a pair of clamps each having a 3.8 cm-dia. circular opening", page 33, lines 26 and 27), which differed from the one described in D38 (point 4.1.1).

However, D38 also describes that the instructions for the specific equipment used must be followed (section 9.6), and explicitly requires that the source and types of test equipment be indicated in the report (section 11.1.5). Moreover, in section 12.2.4, under point "12. Precision and bias", D38 states that "[i]n comparing two mean values for the same material, obtained by different operators, using different equipment on different days, the means should be judged not equivalent if they differ by more than the IR value for that material and condition".

In view of this, it would be manifest to the skilled person that, in this case, reporting the test apparatus ensures the reproducibility of the test method described in the test report. If every test apparatus led to the same result, such an indication would not be necessary, since the measurement result would not depend on the apparatus used.

Hence, the skilled person would not derive from the application as filed that, in the method of measuring the impact energy in claim 1, it is not mandatory to use the DROP-WEIGHT TESTER RTD-5000. In other words, the omission of the apparatus from claim 1 adds subject-matter.

1.6 The appellant argued that the modifications of the measurement method specified in the application as filed starting on page 33, line 23 concerned only the standard test method (disclosed in line 20), and not the specified apparatus (disclosed in lines 21 and 22). Therefore, the measurement could be carried out with any other suitable apparatus, provided the method was modified as described in the application as filed.

This is not unequivocal. The standard test method and the specified apparatus are disclosed in combination (page 33, lines 20 to 22), and the modifications to the measurement method described in lines 23 ff are presented in such a way that they have to be read in combination with the specified apparatus.

This also shows that there is no direct and unambiguous disclosure in the application as filed of a method of determining the impact energy at -10°C according to D38 without using the specified apparatus.

1.7 In the decision under appeal and in the written submissions on appeal, the test report D53 filed by the respondent was discussed. A contentious issue in connection with D53 was whether it demonstrated that the use of a different apparatus in the measuring method of claim 1 did not give rise to different results.

1.7.1 As explained above, the standard for assessing amendments is what the skilled person would derive directly and unambiguously, using common general knowledge, and seen objectively and relative to the date of filing, from the whole of the documents as filed. Nevertheless, the following is noted with regard to the arguments based on D53.

1.7.2 The tests in D53 were designed to show that the values for the impact energy normalised at a thickness of 50 µm and measured with a different apparatus corresponded to the values measured in the patent in suit with the DROP-WEIGHT TESTER RTD-5000 for the films of the same examples (i.e. 4, 5, 9 and 10).

In the statement setting out the grounds of appeal, the appellant demonstrated that the measurements for the impact energy normalised at a thickness of 50 µm in D53 and in the patent in suit (and accordingly in the application as filed) differed distinctly: it calculated a difference of up to 25%. The respondent did not contest this calculation. Instead, it referred to the fact that the films used in D53 were produced under conditions identical to those in examples 4, 5, 9 and 10 of the patent, but at a different time and at a different place, and measured using a different machine (reply to the statement setting out the grounds of appeal, page 7, last paragraph).

1.7.3 In view of this, D53 fails to demonstrate that the use of a different apparatus in the measurement method of claim 1 does not give rise to different results.

Consequently, it cannot support the argument that the DROP-WEIGHT TESTER RTD-5000 may be omitted from the wording of claim 1.

1.8 Finally, the respondent argued that it was unnecessary or unusual to recite the name of a particular commercial machine in addition to an internationally accepted standard measurement method. However, such considerations are not relevant when assessing whether an amendment is allowable. As explained above, the requirements of Article 123(2) EPC have to be examined on the basis of what the skilled person, using their common general knowledge, would directly and unambiguously derive from the application as filed.

1.9 Thus, claim 1 of the main request does not comply with the requirements of Article 123(2) EPC.

2. *Auxiliary requests 1 and 2 and 6 to 13*

2.1 Claim 1 of each of auxiliary requests 1, 2 and 6 has the same wording as claim 1 of the main request. Consequently, these auxiliary requests do not comply with the requirements of Article 123(2) EPC either.

2.2 Claim 1 of each of auxiliary requests 7 to 13 is based on claim 1 of the main request. None of these requests includes in claim 1 the feature that a DROP-WEIGHT TESTER RTD-5000 is used for measuring the claimed impact energy. For the same reasons as explained above in the context of the main request, claim 1 of each of these requests does not fulfil the requirements of Article 123(2) EPC.

3. *Auxiliary requests 3 to 5 - sufficiency of disclosure*

3.1 Claim 1 of auxiliary request 3 has been amended, compared to claim 1 of the main request, by defining that the "DROP-WEIGHT TESTER RTD-5000 available from Rheometrics, Inc." is used for measuring the impact energy recited in claim 1.

3.2 At this juncture it is noted that the DROP-WEIGHT TESTER RTD-5000, as described in claim 1 of auxiliary request 3, was uncontestedly never available. Rather, the known apparatus from Rheometrics was a DROP-WEIGHT TESTER RDT-5000 (emphasis added by the board). It was debated during the opposition proceedings and on appeal whether it was possible to correct the designation of the apparatus in the patent specification documents. The respondent filed D60 (results of a search on Google), D61 (a scientific publication from 1991) and D62 (a conference report from 2001) to demonstrate that

the skilled person would have been aware of the correct designation.

In addition, the respondent argued that document D62, published in 2001, represented evidence that the apparatus with the correct designation was available at the priority date and at the date of filing of the patent in suit. Thus, it was shown that the invention as defined in claim 1 was enabled at that point in time.

The board accepts, in favour of the respondent, that the apparatus (with the correct designation) was available at the effective date of the patent and, therefore, the invention was enabled at that point in time.

3.3 However, an invention also has to be enabled throughout the lifetime of a patent. This is not the case here. The respondent confirmed that even the DROP-WEIGHT TESTER RDT-5000, i.e. the apparatus with the correct designation, is no longer available (reply to the statement setting out the grounds of appeal, page 7, first paragraph).

3.3.1 This conclusion is supported by T 1293/13.

In the case underlying that decision, claims 1 and 17 limited the determination of a property of a garment to a specific method (ASTM D737-96) and to a specific machine, which was no longer available. The board concluded that "[t]he insertion of a feature defined as determinable by a specific machine which possibly was not – but certainly is no longer – publicly available, leads in this case to the invention not being disclosed in a manner sufficiently clear and complete for it to

be carried out by a person skilled in the art" (Reasons 1.14).

3.3.2 Confirmation of the fact that a patent has to be enabled throughout its whole lifetime, especially when the feature under consideration is a product which is marketed under a trademark, may be found in Case Law of the Boards of Appeal of the EPO, 9th edition 2019, Chapter II.C.6.6.9, third paragraph: "[When] the products designated by trademarks are essential for carrying out the invention, the requirements of Art. 83 EPC are fulfilled if these products are available to the skilled person not only at the priority and filing dates of the patent but also during its whole lifetime".

3.4 At the oral proceedings before the board, the respondent stated that there was no proof that the apparatus recited in claim 1, with the correct designation, did not exist somewhere in the world. However, it had stated in its reply to the grounds of appeal that the contentious apparatus had become unavailable. In such a case, following the principle of "negativa non sunt probanda" (T 2037/18, Reasons 8), the burden of proof that the apparatus has ceased to exist is not on the opponent. Rather, the proprietor has to prove that such apparatus is still available. In the absence of such proof it must be concluded that the apparatus is no longer available.

3.5 Thus, it is manifest that the skilled person cannot reproduce the invention as defined in claim 1 without an undue burden. The subject-matter of auxiliary request 3 does not meet the requirements set out in Article 83 EPC.

3.6 Claim 1 of each of auxiliary requests 4 and 5 is identical to claim 1 of auxiliary request 3. Thus, the conclusions drawn for auxiliary request 3 also apply to auxiliary requests 4 and 5; their subject-matter does not meet the requirements set out in Article 83 EPC.

4. Since there is no allowable claim request, the patent is revoked (Article 101(3)(b) 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:

D. Magliano A. Haderlein

Decision electronically authenticated