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**Datasheet for the decision  
of 7 December 2012**

**Case Number:** T 0487/12 - 3.3.03

**Application Number:** 00927449.9

**Publication Number:** 1177225

**IPC:** C08F 210/16, C08J 5/18,  
C08F 4/642, C08L 23/16

**Language of the proceedings:** EN

**Title of invention:**  
Ethylene copolymers and films thereof

**Patentee:**  
Ineos Commercial Services UK Limited

**Opponent:**  
TOTAL RESEARCH & TECHNOLOGY FELUY

**Headword:**  
-

**Relevant legal provisions:**  
EPC Art. 123(2)

**Keyword:**  
"Admendments - added subject-matter (yes)"

**Decisions cited:**  
T 0383/88

**Catchword:**  
-



Case Number: T 0487/12 - 3.3.03

**D E C I S I O N**  
of the Technical Board of Appeal 3.3.03  
of 7 December 2012

**Appellant:** Ineos Commercial Services UK Limited  
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**Respondent:** TOTAL RESEARCH & TECHNOLOGY FELUY  
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**Decision under appeal:** Decision of the Opposition Division of the  
European Patent Office posted 9 December 2011  
revoking European patent No. 1177225 pursuant  
to Article 101(3)(b) EPC.

**Composition of the Board:**

**Chairman:** B. ter Laan  
**Members:** M. C. Gordon  
R. Cramer

## Summary of Facts and Submissions

I. The appeal lies from the decision of the opposition division announced on 22 November 2011 and posted 9 December 2011 revoking European patent number EP-B1-1 177 225 (granted on European patent application number 00 927 449.9, derived from international application number PCT/GB2000/001611, published under the number WO 2000/068285).

The application as filed had 15 claims, whereby claims 1, 2 and 3 read as follows:

- "1. A copolymer of ethylene and an alpha olefin having 3 to 10 carbon atoms, said polymer having
  - (a) a density in the range 0.900 to 0.940
  - (b) an apparent Mw/Mn of 2 - 3.4
  - (c)  $I_{21}/I_2$  from 16 to 24
  - (d) activation energy of flow (Ea) from 28 to 45 kJ/mol.
  - (e) a ratio  $Ea(\text{HMW})/Ea(\text{LMW}) > 1.1$ , and
  - (f) a ratio  $g'(\text{HMW})/g'(\text{LMW})$  from 0.85 to 0.95.
2. A copolymer according to claim 1 having an apparent Mw/Mn in the range 2 to 3 and  $I_{21}/I_2$  from 18 to 24.
3. A copolymer according to claim 2 having an apparent Mw/Mn in the range 2.5 to 3, an activation energy of flow from 30 to 35 KJ/mol, and a ratio  $Ea(\text{HMW})/Ea(\text{LMW}) > 1.2$ ."

II. The patent was granted with a set of 10 claims, whereby claim 1 read as follows, amendments compared to claim 1

as originally filed being indicated in **bold** by the Board:

"A copolymer of ethylene and an alpha olefin having 3 to 10 carbon atoms, said polymer having

- (a) a density in the range 0.900 to 0.940
- (b) an apparent Mw/Mn of 2.5 - **3.0**
- (c)  $I_{21}/I_2$  from 16 to 24
- (d) activation energy of flow ( $E_a$ ) from **30 to 35** kJ/mol.
- (e) a ratio  $E_a(\text{HMW})/E_a(\text{LMW}) > 1.2$ , and
- (f) a ratio  $g'(\text{HMW})/g'(\text{LMW})$  from 0.85 to 0.95

**wherein  $g'$  represents the ratio of the measured intrinsic viscosity divided by the intrinsic viscosity of a linear polymer having the same molecular weight, HMW = high molecular weight species, and LMW = low molecular weight species."**

Claim 2 was directed to a preferred embodiment of the copolymer of claim 1.

Claims 3-7 were directed to a process for preparing a copolymer according to claim 1 or 2.

Claim 8 was directed to a film or other article produced from a copolymer according to claims 1 or 2.

Claim 9 was an independent claim directed to a film.

Claim 10 was directed to a blend of two or more components, one of which was a copolymer according to claims 1 or 2.

III. A notice of opposition against the patent was filed on 14 October 2009 in which revocation of the patent on the grounds of Art. 100(a) EPC (lack of novelty, lack

of inventive step), Art. 100(b) EPC and Art. 100(c) EPC was requested.

- IV. The decision of the opposition division was based on a set of claims filed with a letter of 27 May 2010, corresponding to claims 1-8 and 10 of the patent as granted. Claim 9 as granted had been deleted.

According to the decision claim 1 did not meet the requirements of Art. 123(2) EPC since the specified values for parameters (b), (c) and (d) were not disclosed in combination, or otherwise derivable from the application as filed.

Accordingly the patent was revoked.

- V. On 9 February 2012 the patent proprietor lodged an appeal against the decision, the prescribed fee being paid on the same date.

The statement of grounds of appeal was filed on 12 April 2012.

The set of claims underlying the decision under appeal, corresponding to claims 1-8 and 10 as granted (see section II, above) was maintained as the main request. As an auxiliary request a set of 9 claims was submitted. The auxiliary request differed from the main request in that feature (c) of claim 1 read:

" (c)  $I_{21}/I_2$  from **19.8 to 22.9**,".

- VI. The opponent - now the respondent - replied with a letter dated 14 August 2012.

VII. On 20 September 2012 the Board issued a summons to attend oral proceedings, accompanied by a communication.

VIII. Oral proceedings were held before the Board on 7 December 2012 in the presence of both parties.

IX. The arguments of the appellant can be summarised as follows:

(a) Main request

The values of five of the six parameters of claim 1, i.e. parameters (a), (b), (d), (e) and (f) were disclosed at page 3, lines 11-17, of the application as filed. Parameters (a) and (f) were the same throughout the application. The value ranges for the parameter (b), (d) and (e) were within the broadest ranges disclosed for said parameters, i.e. represented preferred ranges. The claimed range of 16-24 for parameter (c) corresponded to the broadest disclosure of this parameter in the application as filed. The combination of the broadest range of parameter (c) with the - in some cases preferred - values of the remaining five parameters was inherently disclosed in the application as filed.

Furthermore from examples 1, 4, and 5 it was seen that the values for parameter (e) were 1.55, 1.29 and 1.34, all of which were within the claimed range. Similarly from examples 1-3 it would be seen that parameter (f) had the values 0.912, 0.915 and 0.912. Examples 4 and 5 disclosed all the parameters of claim 1 apart from parameter (f).

As the value of parameter (f) reported in examples 1-3 was consistently in the middle of the claimed range it was highly likely that the value of parameter (f) in examples 4 and 5 was also within the claimed range.

Consequently the skilled reader could derive the subject-matter of claim 1 from a full reading of the application as filed.

(b) Auxiliary request

The values of parameters (a), (b), (d), (e) and (f) were identical to the main request.

The specified values of parameter (c) were derived from the examples reported in Table 2 of the application meaning that, in contrast to the situation of the main request, no extrapolation from discrete values to construct the claimed range was necessary.

X. The arguments of the respondent can be summarised as follows.

(a) Main request

There was no basis in the application as filed for the specified value of parameter (c) in connection with the remaining five parameters. No example provided a complete disclosure of all six parameters (a)-(f).

Although page 2, line 32, disclosed values of parameter (c) in the range 16-24 this was in

combination with values of (b), (d) and (e) which were not within the scope of claim 1 and there was no indication that parameter (c) could be taken from another embodiment or list.

Nor did Table 2 provide a basis as none of the examples corresponded to either of the specified endpoints for parameter (c). There was furthermore not a single example which disclosed all the features as required by the claim.

(b) Auxiliary request

The specified range for parameter (c) could not be derived from the examples. Although Examples 3 and 4 provided a basis for the specified values of parameter (c), neither of these examples disclosed all of the parameters of claim 1. Furthermore parameter (b) of example 3 had a value of 3.2 and thus was outside the claimed range.

It was not permissible to extract the values of parameter (c) disclosed in Table 2 and generalise them.

XI. The appellant (patent proprietor) requested that the decision under appeal be set aside and that the patent be maintained on the basis of the main request or alternatively on the basis of the auxiliary request, both filed with the grounds of appeal.

The respondent (opponent) requested that the appeal be dismissed.



## Reasons for the Decision

1. The appeal is admissible.

### *Main request*

2. Art. 123(2) EPC
  - 2.1 The preamble and features (a), (c) and (f) of claim 1 are disclosed in originally filed claim 1 and at page 2, line 28 - page 3, line 3 of the description of the application as filed. The definitions of g', HMW and LMW are disclosed at page 4, lines 5-20.
  - 2.2 The specified values of features (b), (d) and (e) of present claim 1 are disclosed in originally filed claim 3. However in the application as originally filed claim 3 is dependent not on claim 1 but on claim 2 which specifies a value of feature (b) of 2 to 3 and a value of feature (c) of 18 to 24 (see section I, above).
  - 2.3 Consequently the ranges for features (b), (d) and (e) specified in operative claim 1 are originally disclosed only in combination with a range of feature (c) of from 18-24, not however with the broader range of 16-24 as now specified in claim 1.
  - 2.4 The description of the application as filed does not provide any basis for the presently claimed subject matter since in the passage starting at page 2, line 27, and concluding at page 3, line 17, the subject matter of each of claims 1, 2 and 3 is explicitly set out as closed sets of six features.

Thus the description and the claims of the application as filed are consistent with each other in that only certain combinations of values for features (a)-(f) are permitted. There is no statement, express or implied, that the various ranges of values for features (a)-(f) can be freely combined independently of each other. In other words, according to the disclosure of the application as originally filed there is no indication that the ranges of values of the six features (a)-(f) are not interdependent.

Operative claim 1 therefore discloses a combination of values which is not disclosed as such in the description or claims of the application as filed.

2.5 Recourse to the examples does not lead to any other conclusion.

The examples each represent a single point disclosure, i.e. a specific combination of values for each of the six parameters mentioned in present claim 1. Since, in view of the considerations set out in section 2.4 above, only certain combinations of the features (a)-(f) are permitted, it has to be concluded that individual parameters from the examples may not be isolated and generalised. Further, none of the examples discloses all of the six features specified in the claims, meaning that it is not even established that any of the examples actually fall within the scope of the claims. Considerations, as advanced by the appellant, of the likelihood or probability of certain parameters being within the scope of the claims are not appropriate when considering the question of compliance with the requirements of Art. 123(2), as held for example in

decision T 383/88, Reasons, point 2.2.2  
(1 December 1992).

The main request therefore does not meet the  
requirements of Art. 123(2) EPC and has to be refused.

*Auxiliary request*

3. Claim 1 of the auxiliary request differs from claim 1  
of the main request in that feature (c) is specified to  
be from 19.8 to 22.9.

The value of 19.8 is disclosed in example 4. This  
example however does not disclose all the features  
specified in claim 1 since no value is given for  
feature (f), i.e. the ratio  $g'(HMW)/g'(LMW)$ .  
Consequently it is not shown that example 4 even  
represents the subject matter of the claim. Furthermore  
the value of feature (c) has been isolated and  
generalised from the context of the example.

The upper limit for feature (c) - 22.9 - is disclosed  
in example 3. However this example does not represent  
the claimed subject matter since the value for feature  
(b) -  $M_w/M_n$  - is 3.2 and hence outside the range  
specified in claim 1. Furthermore, the example does not  
report features (d) and (e), meaning that it cannot be  
concluded, in particular in view of the value of  
parameter (b), that these aspects of the example fall  
within the claimed ranges.

Consequently not only does claim 1 of the auxiliary  
request rely on values extracted and isolated from the  
examples, which examples, due to the absence of certain

data, are not even shown to fall within the scope of the claims but one of the values so extracted is taken from an example which is manifestly not within the scope of the claims.

Consequently the subject matter of auxiliary request 1 extends beyond the content of the application as originally filed, contrary to the requirements of Art. 123(2) EPC.

The first auxiliary request is refused.

## **Order**

### **For these reasons it is decided that:**

The appeal is dismissed.

The Registrar

The Chairman

E. Goergmaier

B. ter Laan