

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte STEVEN L. SCHILLING
and
EDWARD E. BALL

Appeal No. 2006-0764
Application No. 10/281,733

ON BRIEF

Before KIMLIN, WALTZ, and FRANKLIN, Administrative Patent Judges.

FRANKLIN, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the examiner's final rejection of claims 1-24. Claims 1, 13, and 18 are representative of the subject matter on appeal, and are set forth below:

1. A process for the production of rigid foams having good insulation properties comprising reacting

a) an organic isocyanate with

b) an isocyanate reactive compound in the presence of

c) a blowing agent mixture comprising

(1) 1 to 70% by weight of a hydrogen containing chlorofluorocarbon (HCFC) having a boiling point below 0°C., and

(2) from 30 to 99% by weight of a C₂-C₅ polyfluoroalkane, in which the total of (c1) and (c2) is 100% by weight.

13. A blowing agent comprising a mixture of

(1) 1 to 70% by weight of a low boiling hydrogen containing chlorofluorocarbon, and

(2) from 30 to 99% by weight of a C₂-C₅ polyfluoroalkane, in which the total of (1) plus (2) is 100% by weight.

18. A rigid foam prepared by reacting

a) an organic isocyanate with

b) an isocyanate reactive compound in the presence of

c) a blowing agent mixture comprising

(1) 1 to 70% by weight of a hydrogen containing chlorofluorocarbon (HCFC) having a boiling point below 0°C., and

(2) from 30 to 99% by weight of a C₂-C₅ polyfluoroalkane, in which the total of (1) and (2) is 100% by weight.

The examiner relies upon the following reference as evidence of unpatentability:

Doerge

5,889,066

Mar. 30, 1999

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Claims 1-24 stand rejected under 35 U.S.C. § 103 as being obvious over Doerge.

We note that the rejection involving the reference of Singh has been withdrawn. Answer, page 3.

To the extent that appellants provide specific arguments regarding patentability, with respect to a particular claim, we consider such claim in this appeal. See 37 CFR § 41.37(c)(1)(vii)(September 2004); formerly 37 CFR § 1.192(c)(7)(2003). Also see Ex parte Schier, 21 USPQ2d 1016, 1018 (Bd. Pat. App. & Int. 1991). We therefore consider claims 1, 13, and 18.

OPINION

I. The 35 U.S.C. § 103 rejection of claims 1-24 as being obvious over Doerge

The examiner's position for this rejection is set forth on pages 3-4 of the answer.

Beginning on page 5 of the brief, appellants argue that the amounts of HCFC-22 and C₃-C₅ polyfluoroalkane are the exact opposite of the instantly claimed blowing agent. Appellants refer to column 2, lines 56-62 of Doerge in this regard. We are not convinced by this argument for the following reasons.

As pointed out by the examiner, beginning on page 4 of the answer, overlap exists between the end points disclosed in Doerge and those recited in the claims. We note that in cases involving overlapping ranges (as in the instant case), it has been consistently held that even a slight overlap in range establishes a prima facie case of obviousness. E.g., In re Woodruff, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936-37

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(concluding that a claimed invention was rendered obvious by a prior art reference whose disclosed range of "about 1-5%" carbon monoxide abutted the claimed range of "more than 5% to about 25%" carbon monoxide)); In re Malagari, 499 F.2d 1297, 1303, 182 USPQ 549, 553 (concluding that a claimed invention was rendered prima facie obvious by a prior art reference whose disclosed range of 0.020-0.035% carbon overlapped the claimed range of 0.030-0.070% carbon); see also In re Geisler, 116 F.3d 1465, 1469, 43 USPQ2d 1362, 1365 (acknowledging that a claimed invention was rendered prima facie obvious by prior art reference whose disclosed range of 50-100 Ångstroms overlapped the claimed range of 100-600 Ångstroms). Also, it is well settled that when ranges recited in a claim overlap with ranges disclosed in the prior art, a prima facie case of obviousness typically exists and the burden of proof is shifted to the applicant to show that the claimed invention would not have been obvious. In re Peterson, 315 F.3d 1325, 1329-30, 65 USPQ2d 1379, 1382-83 (Fed. Cir. 2003). Appellants have not provided such a showing.

Lastly, appellants argue that the boiling point of the instantly claimed HCFC is different from the boiling point of the HCFC of Doerge. We refer to the examiner's explanation made in the paragraph bridging pages 4-5 of the answer, and for the reasons provided therein, we are not persuaded by such argument.

In view of the above, we affirm the 35 U.S.C. § 103 rejection of claims 1-24 as being obvious over Doerge.

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No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(iv)(effective Sept. 13, 2004).

AFFIRMED

Edward C. Kimlin)	
Administrative Patent Judge)	
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)	BOARD OF PATENT
Thomas A. Waltz)	APPEALS AND
Administrative Patent Judge)	INTERFERENCES
)	
)	
Beverly A. Franklin)	
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