

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte THOMAS F. KAUFFMAN
And DAVID W. WHITMAN

Appeal 2007-2671
Application 10/461,955
Technology Center 1700

Decided: October 31, 2007

Before EDWARD C. KIMLIN, BRADLEY R. GARRIS, and
CATHERINE Q. TIMM, *Administrative Patent Judges*.

KIMLIN, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the final rejection of claims 1, 2, 4 and 5.

Claim 1 is illustrative:

1. A curable fluid comprising polymeric nanoparticles, wherein said curable fluid is capable of forming a polymeric composition after exposure to at least one cure condition selected from the group consisting of elevated temperature, radiation, mixing of moieties with complementary reactive groups, and combinations thereof, wherein said polymeric nanoparticles

comprise, as polymerized units, at least one multiethylenically unsaturated monomer; wherein said polymeric nanoparticles have mean diameter of 1 nm to 50 nm; wherein said polymeric nanoparticles are made by a process of free radical solution polymerization in an organic solvent; and wherein the total solids level of said curable fluids is 75% or higher.

The Examiner relies upon the following references as evidence of obviousness:

Rowley	6,420,023 B1	Jul. 16, 2002
Young	6,883,908 B2	Apr. 26, 2005

Appellants' claimed invention is directed to a curable fluid comprising polymeric nanoparticles. The total solids level of the curable fluid is 75% to higher.

Appealed claims 1, 2, 4, and 5 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rowley.

Appellants do not set forth an argument that is reasonably specific to any particular claim on appeal. Accordingly, all of the appealed claims stand or fall together with claim 1.

We have thoroughly reviewed each of Appellants' arguments for patentability. However, we are in complete agreement with the Examiner that the claimed subject matter would have been obvious to one of ordinary skill in the art within the meaning of § 103 in view of the applied prior art. Accordingly, we will sustain the Examiner's rejection for essentially those reasons expressed in the Answer.

There is no dispute that Rowley, like Appellants, discloses a curable fluid comprising polymeric nanoparticles having the claimed mean diameter. The principal argument advanced by Appellants is that Rowley does not

teach or suggest a total solids level of the curable fluid at 75% or higher, as presently claimed. Appellants emphasize that Rowley discloses a "solids content ranging broadly from about 40% to 60% and advantageously from about 45% to 55%" (col. 6, ll. 1-3).

Although there is not an explicit teaching in the prior art cited by the Examiner that increasing the solids content of a composition results in any increase in viscosity of the composition, we agree with the Examiner that such a relationship between solids content and viscosity was well known in the art. Manifestly, the higher the solids content of a composition, the less its ability to flow and, ergo, the higher its viscosity.

Moreover, it is well settled that where patentability is predicated upon a change in a condition of a prior art composition, such as a change in concentration or the like, the burden is on the applicant to establish with objective evidence that the change is critical, i.e., it leads to a new, unexpected result. *In re Woodruff*, 919 F.2d 1575, 1578 (Fed. Cir. 1990); *In re Aller*, 220 F.2d 454, 456 (CCPA 1955). In the present case, Appellants have proffered no objective evidence that increasing the solids content of a curable fluid comprising polymeric nanoparticles of the type disclosed by Rowley produces an unexpected result. Indeed, Appellants' Specification hardly attaches any criticality to the solids content of the composition. For instance, the Specification states that the solids content is preferably equal to or greater than 50%, more preferably equal to or greater than 75%, even more preferably equal to or greater than 95%, and most preferably equal to or greater than 99% (see para. bridging pages 24-25), and, furthermore, that the composition can also have a low solids content of 10% depending upon

the particular application. Hence, such preferences would seem to allay any suggestion of criticality, and, we note that the original claims failed to recite solids content as part of the claimed invention.

Consequently, we find that it would have been a matter of obviousness for one of ordinary skill in the art to modify the solids content of the type of composition disclosed by Rowley outside the broadly disclosed range, either above or below it, with the reasonable expectation that its viscosity, as well as other properties, would be altered. We agree with the Examiner that it would have taken no more than routine experimentation for one of ordinary skill in the art to determine the particular solids content and properties of the composition that are most suitable for a particular application and use of the composition.

Hence, we find that the *prima facie* case of obviousness established by the Examiner has not been rebutted by Appellants.

In conclusion, based on the foregoing and the reasons set forth by the Examiner, the Examiner's decision rejecting the appealed claims is affirmed.

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

AFFIRMED

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