

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 MICHAEL A. LUCARELLI,
DAVID J. FLUCK and LEE C. SOULE

Appeal No. 2005-1245
Application No. 09/839,762

ON BRIEF

Before KIMLIN, WALTZ and PAWLIKOWSKI, **Administrative Patent Judges**.

WALTZ, **Administrative Patent Judge**.

DECISION ON APPEAL

This is a decision on an appeal from the primary examiner's final rejection of claims 1 through 23, which are the only claims pending in this application. We have jurisdiction pursuant to 35 U.S.C. § 134.

According to appellants, the invention is directed to powder coating compositions comprising at least one powdered polymer and a metal oxide which has been sized-reduced to a specified mean agglomerate particle size (Brief, page 2). Representative

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independent claim 1 is reproduced below:

1. A powder coating composition comprising:
at least one powdered polymer; and
a metal oxide, wherein the metal oxide has been size-reduced to a mean agglomerate particle size of less than about 25 microns.

The examiner has relied on the following references as evidence of obviousness:

Ettlinger et al. (GB '915) 2 296 915 A July 17, 1996
(published UK Patent Application)

Inoue et al. (GB '527) 2 311 527 A Oct. 01, 1997
(published UK Patent Application)

The claims on appeal stand rejected under 35 U.S.C. § 103(a) as unpatentable over GB '527 in view of GB '915 (Answer, page 3). We reverse the rejection on appeal essentially for the reasons stated in the Brief and those reasons set forth below.

OPINION

The examiner finds that GB '527 discloses powder coating compositions comprising particles of thermosetting resin with 0.05 to 2.0 parts by weight per 100 parts by weight of the resin of finely divided hydrophobic silica powder having a number average particle size of 3 to 10 nanometers (nm)(Answer, page 3, citing page 2, ll. 15-23). The examiner states that it is reasonable to conclude that the silica of GB '527 is a fumed

silica in view of the small particle sizes of 3 to 10 nm (*id.*).¹

In the statement of the rejection, the examiner does not explain why the disclosure of a "number average particle size" of 3 to 10 nm by GB '527 would anticipate or render obvious the claimed limitation of "a mean agglomerate particle size of less than about 25 microns." However, in response to appellants' arguments (Answer, pages 4-5), the examiner finds that it was "known that particles adhere to one another to form aggregates, which combine to form agglomerates." From this finding, the examiner assumes "for the sake of argument" that 2500 particles of GB '527 adhere to one another to form an agglomerate, with all particles of the maximum 10 nm size, thus forming an agglomerate particle size of 25000 nm (i.e., 25 microns). The examiner further reasons that lesser size primary particles (e.g., 3 nm) will produce still smaller agglomerates (Answer, page 4). The examiner finally concludes that it is "reasonable to assume" that there cannot be more than 2500 particles adhering together to form an agglomerate and thus the silica powder of a number

¹The examiner recognizes that GB '527 fails to disclose hexamethyldisilazane as the "hydrophobing agent" for treatment of the metal oxide, with regard to claim 12 on appeal (Answer, page 4). Therefore the examiner applies GB '915 for its teaching of surface-modified pyrogenically produced mixed oxides comprising silica modified with a class of silazanes (*id.*). Accordingly, GB '915 does not remedy the deficiencies noted *infra* in the examiner's rejection.

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average particle size of 3 to 10 nm "inherently" satisfies the claimed limitation (Answer, page 5). We disagree.

The initial burden of establishing a *prima facie* basis to deny patentability rests with the examiner, and the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. See *In re Robertson*, 169 F.3d 743, 745, 49 USPQ2d 1949, 1950-51 (Fed. Cir. 1999); *In re Oelrich*, 666 F.2d 578, 581, 212 USPQ 323, 326 (CCPA 1981). The examiner has not supported, by fact and/or technical reasoning, the statement "for the sake of argument" that only 2500 particles of GB '527 adhere to form an agglomerate (Answer, page 4). Nor has the examiner provided any support, by facts and/or technical reasoning, for the statement that there "cannot be more than 2500 particles adhering together to form an agglomerate" (Answer, page 5). In contrast, appellants have submitted an attachment to the Brief to establish that AEROSIL® products, such as those exemplified by GB '527 (see page 7, ll. 1-5), contain agglomerates of about 10 to 200 microns.² The examiner has failed to discuss appellants'

²See the Brief, page 4, citing Degussa, "Basic Characteristics of AEROSIL®," Technical Bulletin No. 11, section 3.2, date unknown. See also "CAB-O-SIL® Fumed Silica in Coatings" brochure, pp. 1-21, date

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evidence (see the Answer in its entirety).

For the foregoing reasons and those stated in the Brief, we determine that the examiner has failed to meet the initial burden of establishing a *prima facie* case of obviousness. Therefore we cannot sustain the examiner's rejection of the claims on appeal under 35 U.S.C. § 103(a) over GB '527 in view of GB '915.

The decision of the examiner is reversed.

REVERSED

EDWARD C. KIMLIN)	
Administrative Patent Judge)	
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)	
)	
)	BOARD OF PATENT
THOMAS A. WALTZ)	APPEALS
Administrative Patent Judge)	AND
)	INTERFERENCES
)	
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)	
BEVERLY A. PAWLIKOWSKI)	
Administrative Patent Judge)	

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unknown, cited in appellants' parent application (now U.S. Patent No. 6,228,927 B1), which teaches fumed silica agglomerates of up to 44 microns (page 3).

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