

United States District Court,  
N.D. Illinois, Eastern Division.

**BELL & HOWELL DOCUMENT MANAGEMENT PRODUCTS COMPANY, a Delaware corporation,**  
Plaintiff.

v.

**ALTEK SYSTEMS, a Texas corporation, Keystone Jackets, Inc., a Georgia corporation, and George Wrabel, an individual,**  
Defendants.

**Oct. 18, 1996.**

***MEMORANDUM OPINION AND ORDER***

**LEINENWEBER, District Judge.**

This is a suit to stop the defendants FN1 from making, marketing, and selling microfilm jackets which plaintiff claims infringe two United States Patents owned by it and to stop defendants from deceptively using plaintiff's jackets to market and promote defendants' jackets. Plaintiff seeks a preliminary injunction to prevent the above. The defendants deny infringement and deny the deceptive use.

The plaintiff owns, through assignment, two patents for the design and manufacture of microfilm jackets: Patent No. 4,523,401 (the "'401 patent") gives patent rights to the design of the jacket, and Patent No. 4,452,666 (the "'666 Patent") gives patent rights to the process for manufacturing the jackets. These patents differed from the prior art by virtue of the claim that the new jackets had "*in situ* ribs" that were "integrally bonded to" the panel materials to form "a unitary structure free of adhesive and other bonding agents" and leaving the panel materials "unimpaired." The key distinctions between the invention of the '401 and the '666 patents and the prior art claimed by the patentee are thus: (1) the ribs were not premade but made *in situ*, i.e., were made in the "original place" between the two panels out of molten streams of polyester material compatible with the material of the panels; (2) the ribs were integrally bonded to each of the panels creating a unitary structure; and (3) are free of adhesives and other bonding agents and left the panel materials unharmed.

The defendants' alleged infringing product also has *in situ* ribs that are made out of molten polyester material that is compatible with the panel materials. However, the defendants claim that the ribs on their product are not integrally bonded to the panels and the structure of the jacket is not thereby unitary. They also contend that their ribs are attached through an adhesive and that the panels are scored, i.e., impaired.

Each side called an expert witness: Dr. John Muzzy, a professor of Chemical Engineering at Georgia Tech, for the plaintiff, and Dr. Robin McCarley, a professor of Chemistry at Louisiana State University, for the defendant.

Dr. McCarley testified that there are several types of bonding known to the chemistry field including mechanical bonding and integral bonding. In mechanical bonding, two micro-roughened surfaces come together when one is heated the molten material flows over the roughened surface and into the "nooks and crannies" forming a multitude of anchoring or bonding interactions. Integral bonding occurs when the molecules of two materials cross the interface between their surfaces and intermingle extinguishing the interface. FN2 Dr. McCarley testified that the defendants' product involves mechanical bonding rather than integral bonding.

On cross examination, Dr. Muzzy described mechanical bonding as a bond where "you get mechanical interlocking due to the interpenetration of material from one to the other of some materials. So you, in essence, have an overlap and the materials interlock physically but not molecularly." He said that mechanical bonding works like melting ice on a rough surface as opposed to Teflon. Integral bonding on the other hand occurs when "you can't define the interface anymore. In essence, it's a smooth gradient in composition." Dr. Muzzy admitted that the defendant's product did not involve integral bonding because, as he demonstrated with an electron micrograph, you could see the interface. To justify his conclusion of infringement, he stated that the accused product had "an integral bond in the manner in which 'integral bond' is defined in the patent." Dr. Muzzy explained his position more explicitly in his affidavit.

The Muzzy affidavit states that the patentee "used language in the patent which plainly discloses what is meant by such terms as integral bond free of adhesive or other bonding agents." In Muzzy's opinion the patentee meant a bond created by a rib material that itself served as the adhesive and was free of other adhesives or bonding agents and performs a function beyond being merely an adhesive or a bond not created by applying an adhesive at the interface between the panel and the rib, forming "what may loosely be referred to as a combined unitary structure." The term "integrally bonded" was used to distinguish the prior art in which the ribs were glued to the jacket panels.

The defendants on the other hand contend that the patents intended "integral bonding" to mean, in the chemistry sense, i.e., a bonding where the interface can no longer be distinguished by using terms such as "organic bonding" in the patent history to distinguish the prior art. The defendants also contend that their product, which they refer to as the third generation stage, now uses an adhesive system made up of a synthetic resin and a plasticizer to improve adhesion between the ribs and the panels. The purpose of the resin is to increase adhesion and the purpose of the plasticizer, in this case ozone, is to cool the molten rib material instantly. This they claim enables them to manufacture the jackets at ambient air temperatures above 90 (deg.) F.

The plaintiff claims that the addition of these two materials is unnecessary and does nothing to improve the finished product. In short the defendants have added steps solely in an attempt to avoid the plain language of the claims.

In a patent infringement action a party must clearly establish its right to a preliminary injunction in light of four factors: (a) a reasonable likelihood of success on the merits; (b) irreparable harm; (c) a balance of hardships in its favor; and (d) issuance of an injunction is in the public interest. *T.J. Smith and Nephew, Ltd. v. Consolidated Medical equipment, Inc.*, 821 F.2d 646, 647 (Fed Cir. 1987). The patentee bares the burden at the preliminary injunction stage of showing likelihood of success on the merits with respect to the patent's validity, enforceability, and infringement. *Nutrition 21 v. United States*, 930 F.2d 867, 869 (Fed. Cir. 1991). For purposes of this hearing the defendants do not contest the validity of the '401 and the '666 patents. They do, however, vigorously contest infringement. The thrust of their argument is that plaintiff

cannot carry its burden of showing a likelihood of success on the merits of the issue of patent infringement.

The infringement determination is a two-step process: (1) the claims must be interpreted; and (2) the properly interpreted claims are compared to the accused product or process. *Markman v. Westview Instruments, Inc.*, 116 S.Ct. 1384, 1388 (1996). For literal infringement, the accused product must embody every element of the patent claim. *Builders Concrete, Inc. v. Bremerton Concrete Products Co.*, 757 F.2d 255, 257 (Fed. Cir. 1985).

For purposes of the likelihood of success analysis, the court must start with interpreting the claims. The plaintiff claims in Claim 1, the only independent claim for either the '401 or the '666 patents, "A multi-channel transparent jacket ... having ... a plurality of *in situ* ribs formed of moldable plastic material compatible with the material of said panels disposed along parallel lines between said panels and integrally bonded thereto to form a unitary structure free of adhesive or other bonding agents and which the properties of said panels are unimpaired ...."

The defendants dispute plaintiff's proposed interpretation in two respects: first, plaintiff's definition of "integrally bonded" and, second, plaintiff's contention that claim does not disallow the use of the rib material as an adhesive.

What is clear to the court is that chemists have a clear definition of "integral bonding." It means exactly what both Dr. Muzzy and Dr. McCarley agreed that it means: that the two surfaces unite by an exchange of molecules so as to obliterate the interface between them. It is also clear to the court that the rib of the accused product in this case mechanically rather than integrally bonds to the panels. Both Dr. Muzzy and Dr. McCarley agree that in the accused product the rib material is melted so that it "wets" and adheres to the panels much the same as ice will adhere to a rough surface after it is melted and refrozen. Dr. Muzzy's disagreement with defendant is over what he contends that the patentee intended by the use of the term. As explained in his affidavit he believes that the patentee in using the term "integral bonding" meant merely that the two surfaces unite without the aid of a foreign adhesive. "Although a patentee can be his own lexicographer ... the word of a claim 'will be given their ordinary meaning, unless it appears that the inventor used them differently.'" *ZMI Corp. v. Cardiac Resuscitator Corp.*, 844 F.2d 1576, 1579 (Fed Cir. 1988) quoted in *Hogans AB v. Dresser Industries, Inc.*, 9 F.3d 948, 951 (Fed Cir. 1993). To interpret a claim a court may consider, in addition to the language of the claim, the patent specification, the prosecution history, the prior art and expert testimony. *Whittaker Corp. v. UNR Indus., Inc.*, 911 F.2d 709, 711 (Fed. Cir. 1990).

Is there anything in any of these sources that would support an idiosyncratic definition of integrally bonded? The specifications of the '401 patent noted that the ribs of the prior art were "preformed of adhesively coated paper or plastic ... [that] adhered to the panels." It went on to distinguish the invention stating that "the ribs are not preformed but created *in situ* by introducing ... streams of molten plastic, which ... are compressively bonded to the webs ... which flatten the streams to an extent transforming the streams into integral ribs ...." "The molten streams are compressively bonded to the web in the web ... to define the desired *in situ* ribs which proceed to cool, harden and integrate with the webs ...." "[T]he ribs are formed in place and fused to the panel, the resultant ribs being integrally bonded to the panels to form a unitary jacket structure free of adhesive or any other bonding agent."

None of these specifications asserts that there is to be no "integral" bonding; that the inventor merely meant that the *in situ* ribs were merely to adhere to the panels without an adhesive. If that is what the patentee

meant, then the word "integrally" is superfluous: "[I]n situ ribs formed of moldable plastic material ... [bonded] thereto to form a unitary structure free of adhesive or other bonding agents ...." means exactly the same as what the plaintiff and Dr. Muzzy claim that the patentee intended by the words actually used.

The patent history discloses that the patentee engaged the Patent Office in an extensive debate in attempting to distinguish the prior art and avoid obviousness. The patentee relied on the Webster's *Third Edition International Dictionary* definition of "integral" as "organically joined or linked" and argued that "integral bonding", itself, precluded adhesives because "the ribs are organically joined at the panels. This language certainly does not eliminate the possibility that the patentee meant "integral bonding" in the chemistry sense.

One of ordinary skill in the arts reading the claim language would reasonably conclude that the inventor was claiming a jacket with ribs that could not be pulled apart because they had integrally bonded to form a single piece of material much like the result of welding two pieces of steel together using a third piece of material. The accused product clearly is not so bonded: it can quite easily be separated.

The court, therefore, interprets the claims of the '401 and '666 patents for the purposes of this hearing to require actual integral bonding into a single unitary piece of material. Since the accused product and process does not do this, plaintiff has failed to establish a clear likelihood of success in showing infringement of either the '401 or the '666.

The second ground asserted by the defendants as distinguishing its product from the patentee's is the addition of the plastizer and the ozone. There was some evidence introduced that the addition of these two substances increased the bonding between the *in situ* ribs and allowed the manufacture of jackets under conditions of higher ambient temperature due to the cooling properties of the ozone. One cannot avoid infringement by adding elements to the claimed invention if each element recited in the claims is found in the accused device. *Stiftung v. Renishaw PLC*, 945 F.2d 1173, 1178 (Fed Cir. 1991). We need not reach this question, however, because the court has found that the accused device does not contain all of the elements of the claim. The court therefore finds that plaintiff has failed to demonstrate that it has a reasonable likelihood of success on the merits.

The court also finds that the balance of hardships favors the defendants. The testimony was un rebutted that Keystone Jackets, Inc. is a fledgling organization that will go out of business if the court issues the preliminary injunction.

Bell & Howell Document Management Company, on the other hand, is a subsidiary of a large international corporation and has sold over 2 billion jackets and has annual sales of \$800 - \$900 million. Keystone, on the other hand, had sales last year of \$140,000 and has projected sales for this year of only \$300 - \$500,000. Thus, the damage that defendants can do to plaintiff is very limited.

According to Richard Bramley, plaintiff's Vice President of Operations, CD ROM or optical disk storage will, within 3 years, take over the document storage industry. This will eliminate competition between plaintiff and defendants and minimize long-range damage to plaintiff. The evidence further showed that plaintiff is a leader in the new technology.

Accordingly, the motion of plaintiff for a preliminary injunction is denied.

IT IS SO ORDERED.

FN1. The defendant Altek systems apparently had some agreement with the defendant Keystone Jackets, Inc., to manufacture, market, and sell the microfilm jackets but, according to plaintiff, has, since the filing of this case, decided to cease any involvement with Keystone. Hence it has not participated in the preliminary injunction hearing and no relief is requested against it.

FN2. Dr. McCarley testified that there is a third form of bonding, chemical bonding, in which the molecules combine to create a new material.

N.D.Ill.,1996.

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