

CHEMOURS CO. v. DAIKIN INDUS., LTD., Appeal No. 20-1289, 20-1290 (Fed. Cir. July 22, 2021). Before Newman, Dyk, and Reyna. Appealed from the PTAB.

Background:

In an inter partes review, Daikin challenged Chemours's patents directed to specific types of polymers. The polymers were defined by their high melt flow rate ( $30\pm 3$  g/10 min), which allowed the polymers to be extruded as coatings onto wires at high speeds while still producing high quality coatings.

The Board found that all the challenged claims were obvious in view of a U.S. patent that described a polymer for wire coatings that can be processed at higher speeds. The polymer was characterized by a very narrow molecular weight range, which was counter to the conventional belief that broader molecular weight ranges were required for high-speed extrusion applications. The reference described that its polymers had melt flow rates of 15 g/10 min or greater, but only exemplified a melt flow rate of 24 g/10 min. Nevertheless, the Board found that it would have been obvious to have increased the melt flow rate of the reference's sample to within the claimed range (even if doing so would broaden the molecular weight range) in order to achieve higher processing speeds.

Chemours appealed.

Issue/Holding:

Did the Board err in finding that the claims were obvious? Yes, reversed.

Discussion:

The Federal Circuit decided that the Board did not adequately address why a person of ordinary skill in the art would have increased the melt flow rate of the reference's polymer sample to the claimed range while retaining a very narrow molecular weight range. The Board had concluded that even if increasing the melt flow rate to within the claimed range would have necessarily involved broadening the molecular weight range, the resulting range could still be characterized as "narrow" (since the reference did not define what constitutes "narrow"). However, the Federal Circuit noted that this does not address *why* a person of ordinary skill in the art would have been motivated to broaden the molecular weight range when doing so would be contrary to the reference's inventive concept. In fact, the reference provided numerous examples of using other methods of increasing the melt flow rate, and cautioned that those methods should *not* be used if they would risk obtaining a broader molecular weight range.

Judge Dyk dissented, labeling the majority's conclusion of "teaching away" as a departure from Federal Circuit precedent. In particular, the reference acknowledged that it was conventional wisdom to use broader molecular weight distributions, and thus it would be feasible to use a broader molecular weight distribution to create polymers for high speed extrusion applications. There was no evidence of record that adjusting the melt flow rate from 24 g/10 min to 27 g/10 min would broaden the molecular weight distribution to a degree that would "destroy the basic objective" of the reference's invention (citing *Trivascular, Inc. v. Samuels*, 812 F.3d 1056, 1068 (Fed. Cir. 2016)). And the fact "that 'better alternatives exist in the prior art does not mean that an inferior combination is inapt for obviousness purposes'" (citing *Bayer Pharma AG v. Watson Labs., Inc.*, 874 F.3d 1316, 1327 (Fed. Cir. 2017)).