

WORLD FOOTWEAR

In 1966, the Chilean issue of Reader's Digest claimed that by 1983 demand for leather would exceed supply by 30%. A bold statement, but one with which many at the time agreed. The result was a surge in synthetic upper materials of many types, most of which failed for one reason or another. One, however, did so in such spectacular fashion as to be placed alongside the Ford Edsel, New Coke and Sony Betamax as one of the top 100 branded product failures of all time.

Corfam — a disaster waiting to happen

The mighty chemical giant DuPont revolutionised many facets of people's lives when it introduced nylon in 1939. Over 60 million pairs of nylon stockings were bought in the first year and nylon quickly appeared in a vast range of products ranging from toothbrushes to machine bearings and from fishing line to surgical sutures. DuPont made a fortune and became associated with the development of products for a better life.

The footwear industry was geared to leather which was a difficult material to use in the mass manufacture techniques employed in American factories, due to its lack of consistent uniformity. Shoemakers had long dreamt of 'square' cows but nothing had so far come on to the market to replace leather. PVC-coated fabrics were admittedly in use, but only in the cheapest of shoes where the wearer was prepared to put up with discomfort and hot feet in the pursuit of economy.

The big stumbling block with synthetics had always been 'breathability'. In 1956, DuPont developed the process of 'coagulation' which it said introduced millions of pores in a polyurethane-impregnated web such that it could both absorb and transfer humidity and therefore 'breathe'. The idea of a true replacement for leather was born.

Corfam, a name given to the new product was launched at the beginning of 1964. DuPont was confident it had a product that would revolutionise the entire footwear industry in the same way that nylon had done to so many other industries 25 years before. It commissioned extravagant promotions in trade and fashion magazines—even to the extent of suggesting future advertising under the slogan, "If you were introducing DuPont's new Corfam which advertising campaign would you choose?" But, was this confidence really justified?

WHAT WAS CORFAM?

On the face of it, Corfam was a great concept and DuPont pushed all of its alleged advantages. It breathed like leather, stretched easily to fit the foot so that new shoes were quickly 'broken in', it was scuff-resistant and wipe-clean and, for manufacturers, provided 100% multi-layer cutting. Above all the publicity said, "It could take its place, on its merits, shoulder to shoulder with the natural material".

It also claimed to have conducted production and wear trials of 20,000 pairs of shoes covering a wide range of wearers. Even



*The Marine Shop,
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sales people in retail stores were said to be overwhelmingly enthusiastic, with 66% very much so, 26% modestly so, while only 1% were negative. Who could argue with all of this? And even DuPont began to be carried away with its own hype. Only seven months after the launch, it ran an advertisement telling retailers that the reason they could not obtain Corfam shoes was the result of the material's extraordinary popularity. It had to be true as, after all, was it not what everyone had been seeking for so long?

NOT EVERYONE LIKED IT

Not everyone, however, was either convinced or happy. A 1964 issue of Reader's Digest ran a 'Report to Consumers' on Corfam that verged on a full endorsement, claiming it was, in almost every respect, exactly like leather. The Leather Industries of America hit back, saying that it was an untested product, its claims were unproven and it did not begin to approximate the fibre structure of leather.

Retailers started to become alarmed as customer complaints began to arrive. Yes, the shoes did stretch but as soon as they were removed they returned to their original shape and had to be repeatedly broken in. This should have been picked up early on in an independent trial carried out by two podiatrists using hospital nurses as the subjects. It concluded that Corfam did not cause any adverse foot problems but missed an important point as the trial was faulty.

Over the six-month period of the trial, almost 23% of subjects were eliminated due to 'fit failure'. They had not been 'fitted' but merely supplied with the size normally worn on the assumption that regular shoes adjusted to the foot and, as Corfam was like leather, it would also do the same. It did not. Incredibly, the blame was put on the nurses requesting the wrong size—nobody looked at the upper material. This was to prove a very expensive mistake.

If that were not enough, more and more complaints began to come in, citing hot feet, increased sweating, pain and general discomfort. DuPont responded by suggesting customers should buy a size larger to ensure better fit and comfort. This was not very sensible as any shoemaker or retailer knows that nobody, especially a woman, likes to admit to having big feet. Women regularly struggle into shoes a size too small purely out of vanity, and then complain that their feet hurt.

MANUFACTURING PROBLEMS

DuPont's problems were not only in terms of customer satisfaction. It compounded the error of launching a product that had not been sufficiently tested in the field by launching one that it was not able to produce properly. The product had been launched with such extravagant claims, however, that there was no turning back and production would just have to catch up as best it could.

The actual manufacturing concept was not that complex. The basic recipe for Corfam used cut polyester staple to form a light, fluffy web which was condensed by needle punching, then shrunk, impregnated with a polyurethane binder and then coagulated to form the basic substrate. This was the part that was said to replicate leather. It was then coated with a polyurethane finish, coagulated to make it porous and embossed with a leather grain. For some applications, a woven interlayer was placed between the substrate and finish. Unfortunately, Corfam was never easy to produce and never economically viable.

The first 'miniature' production line made material for use in shoemaking trials and for sorting manufacturing problems. It, unfortunately, proved better at revealing problems than solving them. The next stage was a 'pilot plant' with ten-times the volume. The same problems existed, the reject rate was enormous and frustrations increased as, no matter what was tried, no consistency in either output or quality could be achieved. A full size line was built nevertheless and still the problems continued—but on an even larger scale.

FINAL FAILURE

Corfam was always going to be expensive, even without all of the manufacturing problems. In its first year, it was priced at \$1.10 per sq. ft., at a time when a cheap pair of shoes could be bought for \$3.98 and a top end pair for \$20. Leather, on the other hand, was around 50-60 cents per sq. ft. and many other synthetics only 25-30 cents. Corfam at around 65 cents might have stood a chance, but the problems in manufacture were never solved and the cost never came down.

By 1969 there was open hostility to the product in many sections of the industry and, in March 1971, DuPont finally announced that it "planned to discontinue the manufacture and sale of Corfam material within 12 months". What did it all cost? According to US News and World Report, \$250 million at the time, while another reckoning puts it at \$1 billion in today's terms—serious money even for a business the size of DuPont. It also damaged the name and that must have hurt even more.

What can be learnt from all this? For a start, the managers at DuPont clearly did not know enough about the requirements of the footwear industry and its customers. Steeped in a culture of industrial success, they made the basic error of believing what they wanted to believe, rather than what they should have taken the trouble to find out. It is often said today that marketing should be a company's main driving force. Corfam is proof that this is only true when you have a product that works and can be produced consistently at a price the market will bear.

Did anyone win in all this? Yes, the producers of cheaper synthetic materials. If Corfam had been lower in price and capable of consistent manufacture, it might well have succeeded. While it was not a particularly good material, it was not altogether bad, so people increasingly started to regard footwear with synthetic uppers as an acceptable alternative to leather, providing the price was right. Today, the great majority of shoes worn in the USA come from low-priced, high-volume outlets, and are mainly synthetic. And, is there a shortage of upper leather? Not that one can see. 

Information for this profile has been drawn from the recently published book 'Faux Real' by Robert Kanigel. Published by Joseph Henry Press.



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