

Sustainable packaging brand, Delipac, proudly adds PFAS-free to their list of environmental credentials

International food packaging board and paper supplier, Delipac, has built its brand on the concept of sustainability. Offering packaging solutions that already came with an impressive set of environmental accolades including plastic-free, recyclable, compostable and carbon balanced, they are now proudly adding PFAS-free to the list. And we're thrilled that Fidra have been part of that journey.

Per- or poly-fluorinated alkyl substances (PFAS) are a group of over 4,700¹ industrial chemicals, widely used in everything from carpets to cosmetics, cookware and food packaging, and widely linked to major human health and environmental concerns².

The Persistent Problem with PFAS

The carbon-fluorine bond that characterises this chemical group makes them both water and oil repellent, properties highly sought-after in food packaging. However, this carbon-fluorine bond is also one of the strongest known in nature, meaning these chemicals are extremely difficult to break-down or destroy. Some forms of PFAS are known to persist in soils for thousands of years³. They accumulate in our bodies and in



those of our wildlife, cross the placenta into unborn children and circulate the globe in both air and water⁴. Recognised as endocrine disruptors (meaning they interfere with the body's hormone system), many of these chemicals are linked to human fertility and reproductive problems, reduced immune responses to vaccinations and even neurological changes in polar bears^{3,4}. With new evidence of their harmful impacts emerging every day, and concentrations continuing to build in our environment, this is not a problem we can put off until tomorrow.

Pervasive in food packaging

PFAS are used across a range of paper, card, and moulded fibre products, including bakery and pastry bags, pizza boxes and compostable plates, bowls and clamshell containers⁵. With the market currently focused on moving away from single use plastic and the growing demand for eco-branded packaging, are we simply swapping one well-known pollutant for a much more persistent and damaging alternative?

Yes, in many cases we have been, but the tables are turning, and the future looks bright!

PFAS-free options already on our shelves

At Fidra, we're engaging with UK retailers, fast-food companies and policymakers, highlighting the issues and encouraging them to take action, and we've been hugely encouraged by the response. We're now seeing companies across the food retail sector getting involved, working with their suppliers, and in the case of one major UK supermarket, even committing to phasing out PFAS across their products. And the best news is, it's no longer a choice between plastic or PFAS, safer alternatives are already on our supermarket shelves, we just didn't know it until now!

Putting PFAS-free to the test: Delipac's Story

One company, Delipac, found themselves in the midst of the PFAS debate, but by taking a proactive approach, working with their suppliers, retailers and Fidra, Delipac are now able to respond to the growing demand for PFAS-free packaging solutions. Mark Hirlam, Sales Director of Delipac, shares their story:

"We were first alerted to the seriousness of PFAS and the growing concern about its use, by Rob Thompson, Packaging Technologist at The Co-op. We have a great relationship with The Co-op and the upmost respect for their stance on the environment and sustainability. We concluded that if they were genuinely concerned about PFAS, then we ought to be equally concerned.

We started our journey by garnering opinion on the issue from other retailers and brand owners, and with contacts within our own distribution and supply chain, across the UK, Europe, North America and elsewhere. Whilst 90% of respondents were unaware of issues surrounding PFAS, the 10% that recognised the problem were extremely concerned and had already initiated plans to ban their use within their own supplier base. Significantly, this 10% included some of the world's major brands.

On Rob's suggestion, we got in contact with Dr. Kerry Dinsmore at Fidra, to find out more. Kerry proved to be extremely helpful, sharing a great deal of technical information and providing details on developing international restrictions.

Our Delipac board, which is Zero plastic and microplastic and replaces plastic coated / laminated paperboard for barrier packaging applications - think food packaging generally, food & drinks to go, ready meals etc... is a product with a whole host of independent ISO environmental certifications: Recyclable (EN13430). Home & Industrially Compostable, Biodegradable (EN13432) etc...

However, up to this point, Delipac had not been specifically tested for PFAS. Dr. Dinsmore encouraged us to get this done, irrespective of the outcome. Her argument being that facing up to the test results was far better than remaining ignorant. So, we had Delipac tested by the global testing body SGS for the presence of PFAS and are pleased to report that no PFAS were detected.

This has been a fantastic result for our business, enabling us to talk authoritatively about PFAS to the whole of the supply chain, a supply chain who is far more knowledgeable about PFAS now than they were when we embarked on this journey. We've found our customers responding extremely positively to the actions we have taken, and the ability to quickly confirm that we are PFAS-free has been really beneficial to our business. We'd highly recommend others in our position to follow suit. With a growing number of companies asking questions about PFAS, it's much better to know!

We are extremely grateful to The Co-op and of course to Dr. Dinsmore and Fidra for their assistance, as it has helped us take Delipac, which already had excellent environmental credentials, and turn it into a product with exceptional environmental credentials."

Dr Kerry Dinsmore adds "We're now reaching a tipping point in PFAS-use, where awareness in the food sector is high, and the increasing demand for PFAS-free products is being met by supplier innovation. Hearing the positive impact that being PFAS-free has had on Delipac's business is brilliant, it shows that the demand is there and hopefully inspires others to get their products tested and take action where needed"

Iain Ferguson, Co-op Environment Manager, comments: "We believe how we do business really matters, from our work to cut carbon, reduce food waste, source responsibly and eradicate hard to recycle packaging we are committed to working with our suppliers and partners to ensure we have a healthy, sustainable environment to pass on to future generations."

To find out more about PFAS, visit Fidra's dedicated website www.pfasfree.org.uk, download our latest report, 'Forever Chemicals in the Food Aisle', or get in touch with Fidra's PFAS project lead, Dr Kerry Dinsmore.

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 2. ECHA. <<https://echa.europa.eu/hot-topics/perfluoroalkyl-chemicals-pfas>>.
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 4. SA Panel on Contaminants in the Food Chain, Schrenk D, Bignami M, Bodin L, Chipman JK, del Mazo J, Grasl-Kraupp B, Hogstrand C, Hoogenboom L, Leblanc J-C and others. Risk to human health related to the presence of perfluoroalkyl substances in food. EFSA Journal 2020;18(9): e06223.
 5. Dinsmore KJ. Forever chemicals in the food aisle: PFAS content of UK supermarket and takeaway food packaging. Fidra; 2020.
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