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Floreon **is a HIGH PERFORMANCE bioplastic that can help combat climate change**

Floreon is ***sustainable*** material that:

- Offers 7 times lower carbon footprint
- Is commercially viable
- Is made from plants
- Compostable grades available
- Functions the same as traditional plastic

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We hear the plastic industry say...

> **There is NO effective halogen-free FR systems available on the market for ABS**
>
> RISE institute, Sweden (https://www.ri.se/en/what we do/projects/halogen free fire protection for abs)

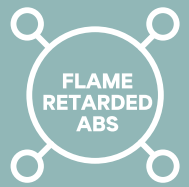
> **Flame retarded ABS cannot be recycled from post consumer sources**
>
> Specialist mechanical recycler, UK

...however Floreon has now changed this perception

Floreon is a *HALOGEN FREE* alternative to Flame Retarded ABS

Floreon *HALOGEN FREE*

Floreon is a **halogen free** alternative to flame retarded ABS and is suitable for both **chemical and mechanical recycling** In addition to this, it has up to **7 times lower a carbon footprint** than ABS



FLAME RETARDED ABS

Flame retarded ABS is not recycled today due to concerns about halogenated flame retardants. Material of choice for the $29.6 bn Electronics and Electricals industry this translates to a vast volume of plastic not getting recycled

FEATURES	Floreon *HALOGEN FREE*	*FLAME RETARDED ABS*
Chemical Recycling	✓	✗
Mechanical Recycling	✓	✗
Low Carbon Footprint	✓	✗
Made from Plants	✓	✗
High Performance	✓	✓

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Floreon is the HALOGEN FREE alterative to Flame Retarded ABS that can be chemically recycled

PLA

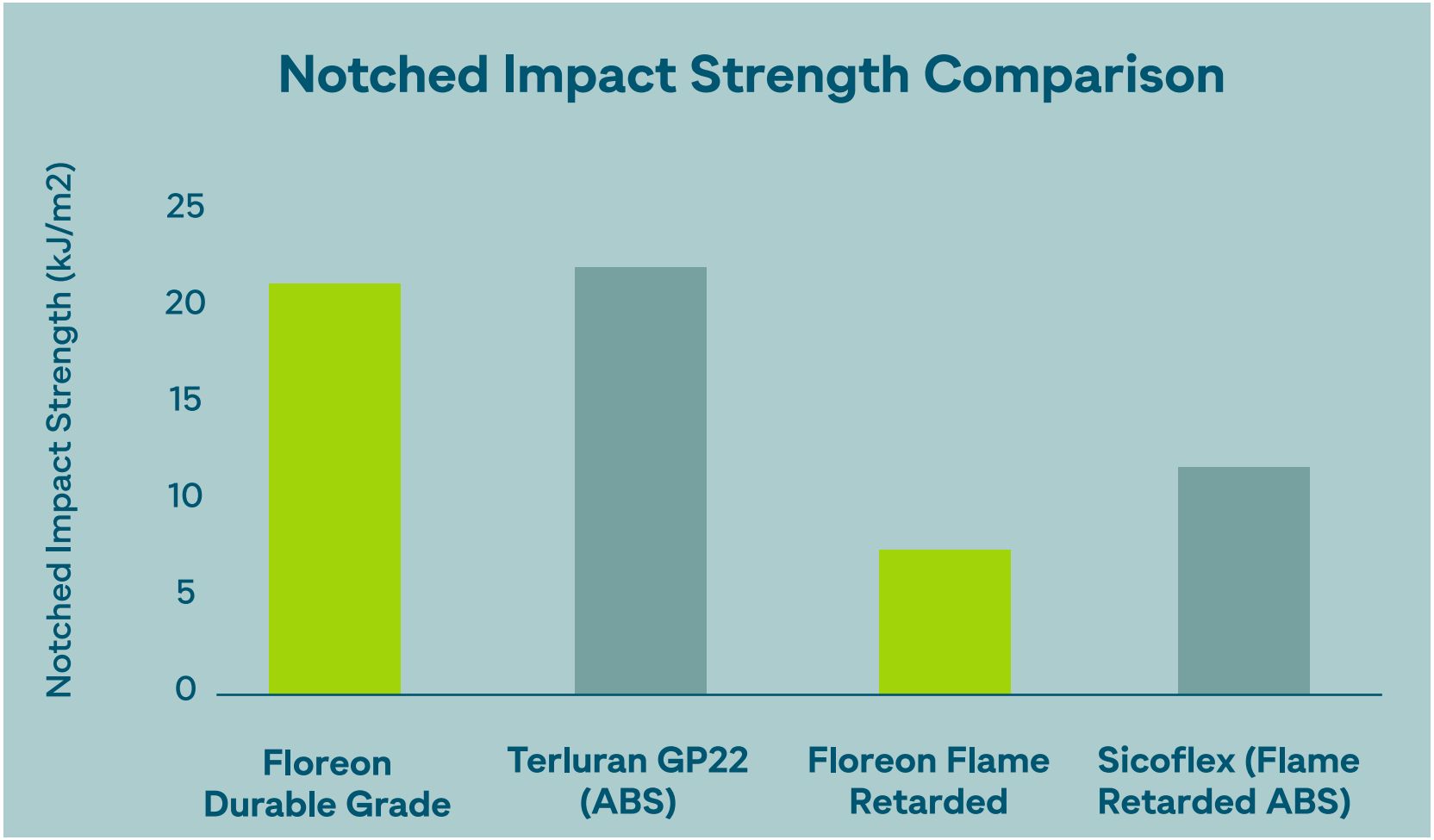
Floreon's base material (PLA) is ideally suited to **chemical recycling**.

In pilot plant /kilo lab trials with the Biorenewables Development Centre, Floreon were able to **recover 100% of the lactic acid feedstock** in a simple and fast reaction, **removing ALL flame retardant** and fillers by simple filtration.

This feedstock can then be used to regenerate virgin polymer with no downcycling.

Benchmarking of Floreon vs ABS

Floreon's durable and flame retarded grades were tested alongside a high performance ABS and flame retarded ABS grade to provide a benchmark. Floreon is able to match the notched impact strength of ABS. Moulded products have also passed all necessary drop testing.



Floreon *Grades Available*

Floreon offer polylactic acid (PLA) based compounds with the performance of ABS. Our patented materials are suitable for both durable and disposable applications

Grade	Features	Process/Applications
Durable Grade	• High impact strength (comparable to ABS) • High renewable content • Low carbon footprint • Chemically and mechanically recyclable	• Injection moulding • Toys • Reusable drinks cups • Non electronic durable applications
Flame Retarded Grade	• Flame retarded to UL94V2 • ABS like properties • Low carbon footprint • Chemically and mechanically recyclable	• Injection moulding • Toys • Consumer electronics • Home furnishings
Injection Moulding Grade	• Industrially compostable • High renewable content • Low carbon footprint • Recyclable	• Injection moulding • Plastic cutlery • Packaging • Horticultural product
Extrusion Grade	• Industrially compostable • High renewable content • Low carbon footprint • Recyclable	• Extrusion (cast and blown film) • 3D Printing • Bags and flexible films • Horticultural films and product

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Redefining PLA

Floreon is based in the Aura Innovation Centre, a new £12 million low-carbon innovation facility based in the Humber led by the University of Hull, where the testing facilities allow Floreon to quickly develop bespoke specifications and bring them to market at speed.

Your Contacts

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