

Alternative Packaging Materials

British Sandwich Association
Zoe Larkins

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Driving forces

- Public perception
- Retailers
- Global circular economy initiatives i.e., Ellen MacArthur Foundation and WRAP
- Government legislation i.e., plastic tax
- Environmental factors

Alternative materials

- Biodegradable
- Compostable
- Natural polymers
- Modified natural polymers
- Bio-based polymers
- Microorganisms + GM bacteria
- Recycled



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Biodegradable- capable of being broken down by living organisms

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Compostable- break down of organic waste to create compost – EN13432

Natural polymers (Modified natural polymers)

Derived from animal,
marine or plant sources

Renewable sources from managed forests/land

Most have poor properties in unmodified form

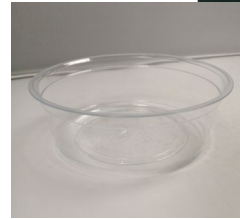
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Bio-based polymers

Derived from plant sources and biomass

Renewable sources or waste streams

Plant based sources would have poor properties in unmodified form

[illegible]

Functionality of alternative materials

Concerns identified relating to sourcing and using alternative materials

Ovenability

Chilled/frozen storage

High temperature in-pack processing

Performance

Usability

Limited knowledge of alternative materials

Hygiene of materials

Sealability

Clarity

Appearance

Barrier properties

Shelf life

Strength

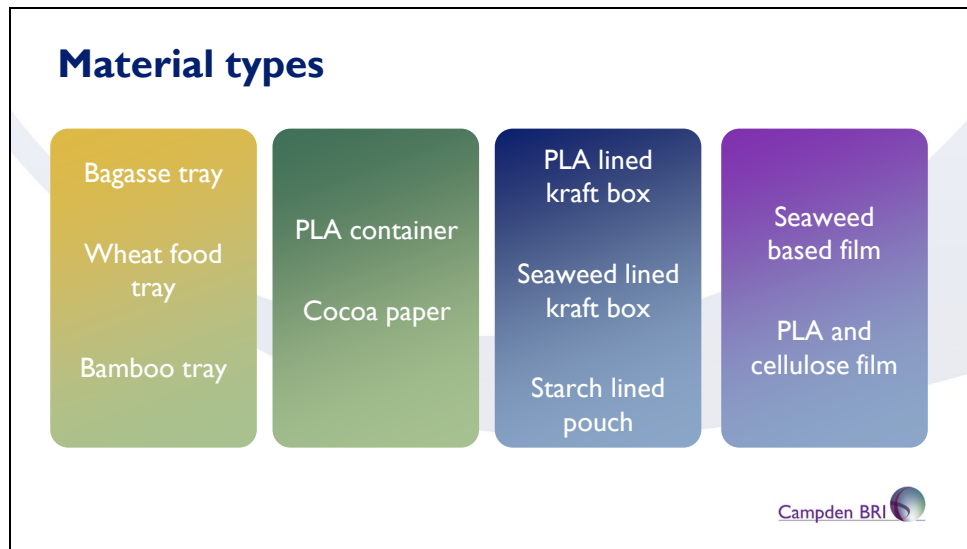
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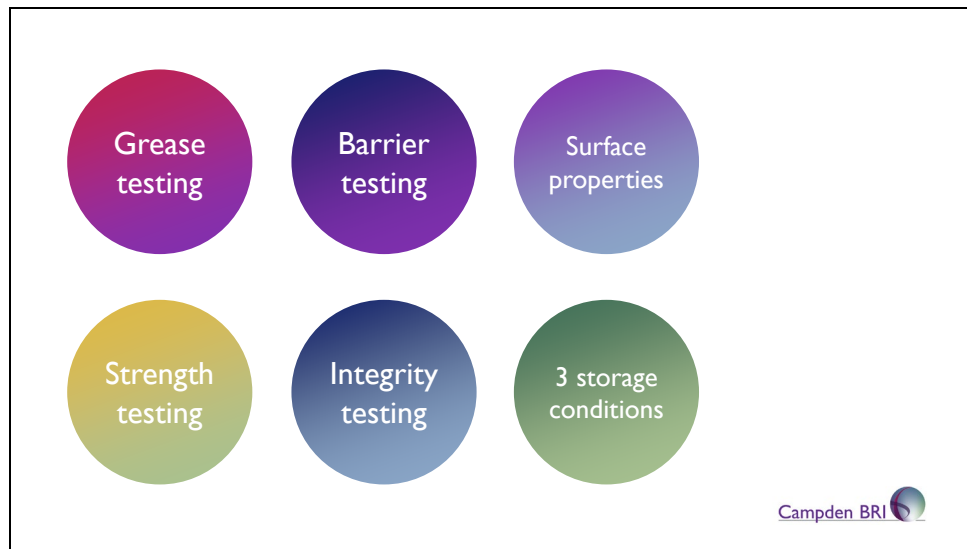
Grease resistance

Relevant testing

[illegible]







Project Results

- Possible to apply the standards to the alternative materials.
- Storage conditions affected results.
- Highlighted importance of understanding the intended use and expectations.



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[illegible]

Thank you for listening

British Sandwich Association
Zoe Larkins (Zoe.Larkins@campdenbri.co.uk)

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