Next Generation Packaging: Developments in Paper-Based Packaging & Bioplastics

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TRANSCEND PACKAGING LTD.
About Transcend Packaging

• New company based on sustainable paper-based packaging and digital print technology

• Experienced management team with over 150 years of experience and numerous awards for quality and service

• Focused on sustainable packaging with fully compostable and recyclable solutions

• UK-based production with a 160,000 ft² facility in Wales
Transcend Packaging Ltd. Production Facility
Ty Dyffryn, Dyffryn Business Park, Ystrad Mynach, Caerphilly CF82 7TW
I want to say one word to you… Plastics

• Back in 1967’s movie "The Graduate" plastics seemed like the path to a bright future

• Benjamin: Exactly how do you mean?

• Mr. McGuire: There’s a great future in plastics. Think about it. Will you think about it?
Now plastic pollution is a global challenge
Everything has changed in our market

• Our industry has been static and reluctant to change
• Cost was the barrier
• The “Blue Planet” helped create a consensus for action
• Reuse and recycling are key, but they present significant challenges and are not the only answer
• Compostability is an important part of the solution
• Reduction of littering (particularly plastic pollution) is key for consumers and on the agenda of regulators
Where do we go from here?

• Single-use plastic is under pressure (UK and EU have proposed bans and taxes on specific plastic-based items)

• Alternative packaging solutions will move toward recyclable, sustainable and compostable materials

• More investment in innovation, recycling and composting infrastructure is required

• Across the packaging landscape, paper is king again

• Bio-resin solutions will become more important
Sustainability is big news
Our next generation packaging solutions

• Sustainable paper-based packaging
• Sustainable bio-resin enhanced products
  • Rigid containers
  • Paper cups
  • Flexible packaging
• Digital printing to reduce waste and product obsolesce
Paper + bio-resins provide solutions

• Paper is an immediately deployable solution (paper straws for example)

• A wide range of plastic applications can be replaced with paper

• Paper is both renewable and sustainable

• The shift to paper is accelerating in the marketplace (price is reflecting the increase of demand)
The business case for paper

• Applications where paper can replace plastic:
  • Paper for “on the go” trays instead of PP/PET trays
  • Conventional and microwaveable paper trays instead of PET coated paper trays
  • Paper straws instead of plastic straws
  • At the end of product life, paper can be recyclable and it is compostable
Transcend’s compostable paper straws
Bio-resins set to enhance sustainability

- Bio-resins can offer solutions on numerous applications
- They are sustainable, compostable and can bridge gaps between performance and recyclability
- Innovation in this area is key, more effort is required
- Sugar taxation can indirectly offer a huge opportunity in sourcing monomers for bio-resins
The business case for bio-resins

• Bio-resins can offer solutions on numerous applications:
  • Bio-resin trays and flexible film instead of traditional PP/PET trays and film
  • Bio-resin coated paper cups instead of LDPE coated paper cups
• At the end of product life, bio-resins are compostable and can greatly enhance sustainability
Transcend bio-resin blend for rigid containers
Transcend bio-resin coated paper cups
Transcend bio-resin coated paper trays
Transcend bio-resin for flexible packaging
Digital printing leads to greater sustainability

• Only print what you need - dramatically reducing waste
• Shorter print runs with no need for plates
• Less set-up waste with first sheet ready to go
• Allows you to minimise obsolete stock
• Lower carbon footprint
Digital will lead the next evolution of packaging
Personalised  Efficient
Adaptable  Sustainable

Why Digital?
Reducing Print Waste – HP Indigo 30000
Reducing Print Waste – HP Indigo 12000
Conclusions

• Regulation has/will introduce bans and levy additional taxation on traditional plastic

• Recycling is important, but it will not be deliverable overnight due to the required investment and infrastructure

• Switch to paper whenever possible now! Use recycled paper or virgin paper certified against accredited reforestation schemes

• Bio-resins offer numerous solutions, use them especially where recycling is not effective
Conclusions

• Industry needs to step up innovation in bio-resins and other sustainable packaging options

• Marketing opportunities (and plastic taxation) will overtake current concerns regarding the additional cost of enhanced sustainability

• The public must learn to accept some compromises between the performance of paper and bio-resins versus existing plastic options
Conclusions

• Transcend Packaging has developed the supply chain to implement utilization of compostable bio-resins

• These bio-resins are higher performing than PLA in machinability and degradation (including the marine environment)

• We believe our paper and bio-resin solutions will provide a breakthrough in the market

• Please contact us for more information. Thank you.
Leading The Way In Sustainable Packaging Solutions

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