



## Media Asset: Technical FAQ 2025

Prepared by Wastebuster – Updated 20.02.2025

### 1. Why is toy recycling needed?

Every year, an estimated 318 million toys are sold in the UK, many of which contain plastic. However, there are currently limited facilities for collecting and recycling plastic toys at scale. *Recycle to Read* aims to bridge this gap by creating a national toy recycling infrastructure that supports the circular economy, promotes environmental education, and provides free books to schools. The programme has been developed in the UK with the aim of being replicated globally.

### 2. What types of toys can be recycled?

*Recycle to Read* accepts all broken hard/ rigid plastic toys that:

- Fit completely within the collection bin
- May include small metal screws, plastic filament hair, stickers, and minor card/paper inserts

*Recycle to Read* **does not** accept:

- Battery-powered, electronic, or electrical toys
- Rubber or flexible plastic toys
- Metal or slime toys
- Soft toys, plush toys, or textiles
- Puzzles, inflatables, or wooden toys
- Toys with fabric parts
- Any form of toy packaging

Toys with electrical components can be widely recycled at shops and council recycling centres, many of which also accept metal toys. Some councils now collect electricals at the kerbside — visit the [Recycle Your Electricals](#) website for more information.

*Recycle to Read* is also exploring opportunities to recycle soft plastic toys and plush toys using both mechanical and chemical recycling technologies.

### 3. How does the toy recycling process work?

Collected toys undergo a systematic recycling process facilitated by Impact Recycling and other partners:

1. **Collection & Pre-sorting:** Toys are collected from participating Tesco stores and other partners, then pre-sorted to remove contamination.
2. **Separation of Electronic Toys:** Any battery-powered, electronic, or electrical toys found are separated and processed as Category 7 WEEE (Waste Electrical and Electronic Equipment).
3. **Shredding & Metal Separation:** Non-electronic plastic toys are shredded, with metal components removed via magnetic separation.
4. **Plastic Separation:** Impact Recycling's BOSS water-based density separation technology sorts plastics by polymer type with up to 98% purity. The system submerges plastic particles in a liquid solution where they are agitated, allowing polymers to separate based on density for precise sorting with minimal contamination.
5. **Pelletisation:** Sorted plastics are converted into post-consumer recycled (PCR) plastic pellets, optimised for various manufacturing applications.
6. **End-Use Applications:** By diverting useful materials from disposal, these recovered materials can be used in the manufacturing of new products with post-consumer recycled (PCR) content.
7. **Energy Recovery (Last Resort):** Materials that cannot be recycled are incinerated with energy recovery.

### 4. Is it better to recycle broken plastic toys than send them to landfill or incinerate them?

Yes. The scheme is designed to reduce greenhouse gas emissions by increasing the supply of recycled plastic, thereby decreasing reliance on fossil fuels for new plastic production.

*Recycle to Read* also minimises environmental impact by transporting toys using existing delivery routes or efficient bulk transport.

Our recycling partners use low-energy processes, harvest rainwater, and recycle water used in processing. Additionally, additives in the recycled plastic pellets help reduce energy consumption during moulding and improve the recyclability of plastics over multiple cycles.

### 5. What are the technical challenges of recycling toys, and how are you addressing them?

#### Key challenges:

- Contamination of toy collections
- Dismantling toys and sorting multiple materials
- Economic viability of toy recycling

#### Solutions:

- Clear, consistent messaging through schools, communities, and industry to encourage proper recycling practices

- Pre-sorting processes to remove contamination
- Providing guidance to toy producers to improve toy recyclability over time
- Utilising advanced recycling technologies and developing infrastructure to manage legacy toys
- Creating efficiencies through collaboration, leveraging investment from stakeholders across the toy value chain on environmental, social, and economic grounds

## 6. Are you exploring toy and packaging design for recyclability?

Yes. Wastebuster conducts research into toy and packaging design for recyclability through its *Toy Circularity Hub* as part of *Recycle to Read*. The organisation publishes annual industry guidelines on key areas, including toy design, to ensure more recyclable toys reach the market, incorporating recycled content where possible and supporting reuse within a circular economy.

## 7. How are electronic (non-target) toys processed?

Battery-powered, electronic, or electrical toys are classified as Category 7 WEEE (Waste Electrical and Electronic Equipment — i.e., anything with a battery, lead, plug, or solar panel) and must not be placed in *Recycle to Read* collection units. These toys follow a distinct recycling process in compliance with UK WEEE regulations:

- **Separate Collection & Handling:** Electronic toys must be recycled separately with other WEEE items to prevent contamination and comply with legal requirements.
- **WEEE-Compliant Processing:** WEEE items are sent to certified treatment facilities (AATFs). *Recycle to Read* partners with Wastecare to manage non-target electrical toys responsibly.
- **Component Disassembly:** WEEE items undergo assessment for reuse, followed by manual or mechanical disassembly to extract valuable or hazardous components (e.g., batteries), allowing for the bulk separation and recovery of materials like metals and plastics.
- **Material Recycling & Safe Disposal:** Recovered materials are processed for reuse, while hazardous components are disposed of according to UK and EU waste management standards.

## 8. Compliance and Environmental Responsibilities

*Recycle to Read* works with Wastecare and other compliance partners to meet regulatory requirements, ensuring:

- **Chain of Custody:** Full documentation of material movement and processing
- **Environmental Permits & Reporting:** Adherence to UK and EU waste management laws
- **Processor and Material Audits:** Independent verification of recycling processes, recycled content, and output materials

- **Best Practice Compliance:** Commitment to minimal waste, optimal resource recovery, and transparent operations

### **9. How can media and industry access further technical information?**

Media representatives, industry professionals, and researchers can request the following information in 2026, following the first year of UK-wide programme delivery:

- Detailed insights into the recycling process
- Environmental impact reports
- Technical studies on toy recyclability and material recovery

For more information, please visit [www.recycletoread.org](http://www.recycletoread.org) or contact [info@wastebuster.co.uk](mailto:info@wastebuster.co.uk).