

# Traceability of recycled material

## Case overview

- The new regulation (EU) 2025/40 traceability of plastic material usage requires reporting of recycled content in products.
- Downstream customers of the producer are supplying material and asking for full traceability of material over production runs or per shot to meet audit requirements.



### Business challenges

- Failure to meet traceability requirements risks contract losses and exclusion from closed-loop recycling programs.
- Inaccurate dosing keeps scrap and regrind waste high and lowers OEE.
- Manual reporting has a high administrative workload and inaccurate recycled-content data leads to failed audits and conflict.

### Business outcomes

- Automated data logging reduces manual work and eliminates reporting errors, improving compliance confidence.
- Precise shot-by-shot dosing reduces material waste, supporting more consistent production and improved OEE.

### Capacity enabled

- Automated data logging of weight and material used per shot or production run.
- Precise shot-to-shot dosing.
- Reliable compliance reporting to downstream customers.

### Business impact

- Revenue increase ✓
- Costs decrease ✓
- Risk avoidance ✓
- Proof of compliance ✓
- Capacity increase ✓
- Safety / efficiency ✓

## Use case

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## Technology enablers

- Gravimetric measurement per shot with the gravimetric MDS Balance.
- Real-time logging software with ERP integration.
- Centralized monitoring of material use through MCsmart software function.
- Automated calibration for consistent dosing.

Use case

## Capabilities

- Gravimetric (weight-loss measurement).
- Shot-based additive dispersion logging (IMM signal).
- Auto-adjust to maintain setpoint accuracy.
- Modbus, Profibus, Industry 4.0-ready.

## Benefits

- Significantly minimized risks associated with handling additives.
- Data logging tasks that took hours to complete, can now be done in just minutes.
- 100% traceability of additive material used per shot, or per batch.

## Requirements

- Integration of IMM signal with gravimetric controller.
- ERP connection and internal adoption of automated reporting.
- Trial period with weight verification and cross-checking.
- Operator training for interpretation of shot-based reports.
- Guided commissioning by vetted channel partners.