

PVC Pipe Production in Latin America

Case overview

- A leading producer of PVC pipes and profiles in Latin America operates several extrusion lines, producing pipes that require a specific wall thickness.
- Before implementing Movacolor systems, the company relied on manual adjustments and separate dosing devices from different brands on one production line



Business challenges

- The growing use of pulverized regrind made it difficult to ensure stable flow without compromising line performance.
- Limited visibility into real-time material consumption and throughput reduced efficiency in quality control and reporting
- Frequent process variations required manual adjustments by operators, increasing labor costs.

Business outcomes

- Fully stabilized extrusion throughput with amperage variation below ± 1 A, resulting in steady pipe weight and diameter.
- Reliable low-percentage masterbatch dosing (<0.15%), reducing additive waste and ensuring uniform coloration.

Capacity enabled

- Integrated automation of main material, regrind, and masterbatch dosing under one control system.
- Real-time throughput synchronization between all components using MMS Weight as the reference.

Business impact

- | | |
|---------------------|---|
| Revenue increase | ✓ |
| Costs decrease | ✓ |
| Proof of compliance | ✓ |
| Capacity increase | ✓ |

Use case

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Technology enablers

- MCS Continues Feeder continuously measures main-material throughput (kg/h) in real time and automatically synchronizes connected dosing units.
- MDS Balance HO provides high-output dosing for pulverized regrind up to 25% of total material without affecting stability.

Use case

 **MOVACOLOR**

Technology view

Capabilities

- Real-time gravimetric control automatically compensating for throughput variation and bulk-density changes.
- Auto-adjust to maintain setpoint accuracy.

Benefits

- Scrap reduced by 5–7% and masterbatch consumption lowered by up to 10%.
- Regrind usage increased to 25% without compromising output or flow.

Requirements

- Handling pulverized regrind required adjustments to cleaning and air-assist systems during commissioning.
- Initial calibration required to synchronize throughput feedback between the extruder and MMS Weight.