A paperless, SAP-driven mixing workshop with WIP lookups in seconds

Saint-Gobain Abrasives · Abrasives

Plantformance moved a Saint-Gobain Abrasives workshop from paper, isolated PLCs and legacy SCADA to a paperless, SAP-driven Ignition MES, cutting WIP container lookups from hours to seconds. The template is now used across its plants globally.

100%
paperless, SAP-driven workflow

Up to 4
parallel batches queued

THE PROBLEM

The workshop ran on obsolete legacy SCADA software and unmanaged Windows PCs, a real reliability and cybersecurity risk. Production PLCs were isolated from the plant network. Raw materials and leftover mixes were tracked on paper without validation, and recipes were typed in by hand. Every one of those steps carried a high risk of human error, and material waste went unmonitored. The plant needed a system that connected the machines, removed paper and enforced the rules automatically.

HOW WE DID IT

Working in phased upgrades from 2017 to 2020, the team added network cards to bring all PLCs onto Ethernet and replaced the legacy Wonderware/Sofraden software with Ignition HMIs. Bidirectional SAP integration now loads recipes automatically and confirms orders. Multi-station touchscreens use RFID and barcode validation. Virtual silo tracking shows material in real time. A 2D compatibility matrix regulates which mixes can be recycled into which. A high-availability server cluster keeps the system running, and dynamic logic queues up to four parallel batches.

BEFORE

Operations depended on paper production orders and recipe sheets across unsynchronized workstations, WIP containers had to be found by physical search, and material reconciliation lagged by up to 24 hours.

AFTER

The facility runs a 100% paperless, SAP-driven workflow with recipes loaded straight into the PLCs, automated guardrails on material compatibility and dosing, and all unsupported legacy software and operating systems decommissioned.

RESULTS

- Critical operational and cybersecurity risks eliminated
- WIP container lookup times cut from hours to seconds
- Real-time material balance and cost tracking per batch
- Fewer quality errors through mandatory barcode checks and automated validation
- Higher throughput from parallel batching, with the modular MES template now deployed across Saint-Gobain Abrasives plants globally

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PLANT FORMANCE

NEXT STEP

Planning a project like this?

Talk to an Ignition engineer about your sites, timeline and architecture. We will tell you honestly what it takes.

Contact Plantformance

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Plantformance is an Inductive Automation Alliance Partner that helps enterprises deploy, secure, and scale Ignition across sites through plug-and-play modules, turnkey zero-maintenance HMI hardware, and 24/7 managed infrastructure.

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