



CASE STUDY: CLARIOS

Leading Battery Manufacturer Increases Recycled Resin and Operating Efficiency While Reducing Energy, Wear, and Tear.

Challenge:

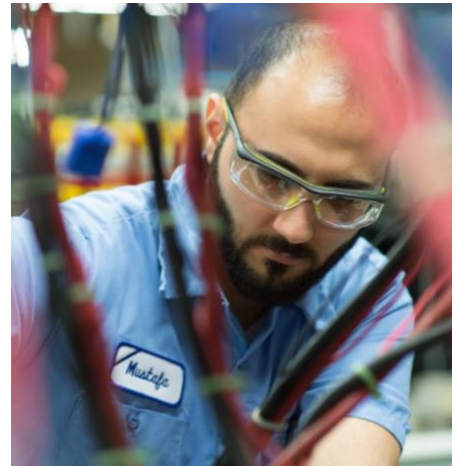
One out of every three automobiles in the world are powered by Clarios. Recycling old batteries into new ones is an industry mandate and represents significant processing challenges.

- Wide variability in recycled material quality changes the portion of recycled resin that can be used.
- Long part flow-lengths require high pressure to mold.
- Molds have very fragile elements easily damaged by high pressure.

As a result: less than acceptable operating efficiency, high scrap, wear and tear, frequent mold breakdowns, and capital spend.

Action:

Clarios partnered with iMFLUX to install our adaptive low-constant-pressure processing with auto viscosity adjust and measure the differences against their conventional results.



Results:

Lower Energy Use:	10% reduction
Recycled Resin Content:	Up to 90%
Operating Efficiency:	18% Increase
Wear & Tear:	Eliminated Mold Damage
Mold Tear Down:	From 1/6 days to 1/30 days

- Clarios produced 4.4M more batteries and gave employees Christmas break.
- iMFLUX has been installed across the site with more sites planned.



The Green Curve (iMFLUX) has proved invaluable in our effort to establish more processes using sustainable resins. Not only have we been able to increase our percent of regrind used, but we are seeing more consistency than ever before.



Brandon Meadors, Engineering Manager, Clarios