Lavergne is Raising the Bar on PET Plastics

Lavergne is leading a new era for plastics manufacturing, including Polyethylene Terephthalate or "PET" — the plastic commonly found in single-use plastic bottles, food packages, fibres, sheets and films.

By prioritizing sustainability, innovation and collaboration, our engineers and company partners are changing the way people think about creating and consuming PET plastics.

The inspiring changes are happening on many fronts.

First, our work on PET plastics is an environmental win. Lavergne's VYPET™ series resins are based on 100% recycled, post-consumer plastics, a direct result of Lavergne's Closed Loop where end-of-life and ocean-bound plastics are diverted from landfill or ocean and recycled for parts in laptops, automobiles and appliances, just to name a few.

Second, Lavergne's VYPET™ series raises the bar on scientific work. The PET resins come to life (or "comes to re-life" in a recycling context) through an innovative manufacturing process that uses special additives to strengthen the plastic structures.

Finally, the Lavergne process is global. Post-consumer plastics are collected in multiple countries, including an inspiring program in Haiti, then high-quality PET resins created through reactive compounding at our plants in Canada and Asia.

Can you get a recycled PET compound suitable for the full range of applications, including the toughest plastic needs? Yes. With the right team and technology, you can.

Innovative Engineering

Lavergne engineers have raised the bar on plastics recycling. Our manufacturing plants use a proprietary three-step engineering process to strengthen the recycled resins. The process:

1. Uses intensive laboratory testing to characterize the recycled PET and ensure stringent quality control
2. Incorporates selected additives to protect the molecular chain
3. Engages an innovative Reactive Compounding process to further strengthen the plastic's molecular structure

Through proprietary formulating and manufacturing capabilities, Lavergne UpCycles the VYPET™ series into various polyester compounds, including Polyethylene Terephthalate (PET) and Polybutylene Terephthalate (PBT), for enhanced reuse.

An Alternative to Virgin PET or Nylon

Lavergne's VYPET™ — our recycled PET — meets the quality standards to compete directly with virgin PET. On the technical level, Lavergne's VYPET™ provides all the benefits that PET offers:

- Superior stiffness
- Solid heat resistance (effective for automotive engine parts)
- Tighter hold on gases (carbonated drink containers)

Moreover, because Lavergne's VYPET™ uses post-consumer feedstock, there is a cost advantage compared with virgin PET resins.

In many cases, Lavergne's VYPET™ is even a viable alternative to nylon. Our recycled PET product has

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the dimensional stability to withstand humidity, moisture absorption and temperature compared with nylon.

Lavergne's VYPET™ are proven suitable for a range of applications:

- **Glass fibre** reinforced for uses needing high strength and stiffness
- **Toughened grades** for uses requiring high-impact properties
- **Low warp grades** for thin wall applications, also the applications requesting accurate dimensions
- **High gloss grades** for cosmetic parts with high surface quality

VYPET™ serves any type of industrial need through its impressive array of strength, stiffness, chemical resistance, heat deflection temperature and dielectric strength. These attributes are extremely useful in precision automotive parts, consumer electronics, home appliances and furniture.

No Need to Produce Virgin Resin

With today's wide range of demands for quality, strength and flexibility, is it possible to use entirely recycled materials and avoid creating new resins? With the right team and technology, it is possible. Lavergne is changing the game.

See the full range of Lavergne's VYPET™ products in the easy-to-use online catalogue.