

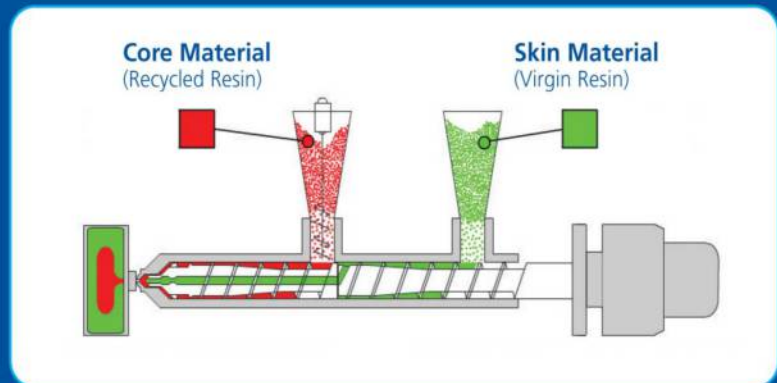
# Twinshot® Multi-Material Molding

Pioneering — Proven — Profitable

Do you want to...

- Reduce your resin costs by 35% or more?
- Save on labor and maintenance costs?

...then Twinshot® may be for you!



## Joint for Building Construction

Core: Glass-filled ABS  
Skin: ABS

**The Twinshot®** patented multi-material molding is a cost-effective process that can give you a distinct competitive advantage within your marketplace by significantly reducing part cost while improving product quality. It's a single injection unit, multi-material system that can be easily retrofit to your current screw/barrel injection molding machine.

**Available only from Xaloy, Twinshot® enables a conventional machine with a single barrel and screw to inject two materials in one operation, with one material totally enclosing the other.**

This new multi-material molding technology removes the obstacles to widespread co-injection utilization while preserving all of the traditional benefits.

Simplicity and low cost differentiate this innovative technology from other co-injection processes. With this new system, virtually any custom or proprietary molder can afford multi-material molding equipment.



- Single screw, single barrel, single recovery, single shot, single cycle... two materials.
- Two independent melting sections (one for the skin material and the other for the core material) with multi-zone temperature control.
- Single shot mold fill. The first part of the shot is skin; the second part is core.
- Mold fill follows fountain flow principles causing skin material to fill the outer geometry of the part and cool as the inner material flows through the molten core.
- Volume is controlled by varying primary or auger feeder screw speeds.
- Result is a three-layer or "sandwich" construction A-B-A.

Twinshot® is a registered trademark of Community Enterprises LLC  
Covered by U.S. & foreign patents

**XALOY**  
Solutions through Innovation.™

# Twinshot® Multi-Material Molding

## Twinshot economics for the molder.

Engineering Resin

Virgin price/kg = 3.33

Regrind price/kg = 2.80

Shotweight is 400 grams; skin 60%, core 40%

**Material cost savings is 0.0848**

Overall cycle time is 30 sec.

120 hrs/week

**ROI is 52 weeks**

### Benefits of Twinshot®

There are a number of reasons to consider converting a standard injection molder to Twinshot. The Twinshot multi-material molding enables molders to:

- Encapsulate off-spec, regrind or recycled material and save on material cost.
- Encapsulate foamed material to reduce sink, warpage, and improve strength-to-weight ratio.
- Produce soft-touch parts in a single molding operation.
- Encapsulate reinforced materials within a cosmetic surface.
- Make use of off-spec and regrind materials.
- Encapsulate a lower-cost resin within a higher-cost UV inhibitor or colorant.
- Use less energy.
- Enjoy simpler set-up and lower operational complexity.
- Reduce maintenance costs, compared to 2-K.
- Use less floor space.
- Use a nozzle configuration that is completely standard.
- Easily convert back to single-material mode (simply supply the same material to both feed hoppers).