



## The higher end of molding...

*let us worry about delivering your plastic components manufacturing*



**DPS Molding, Inc.**

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## What do we do? **Materials & Technologies**

We use all major thermoplastic resins including PP, PS, ABS, SAN, PC. We do specialize in the following processes:

**Structural Foam Molding** is used to produce bulky items overcoming issues like warping, cracking, shrinkage and much of the built-in-stress found in conventionally molded thick components. The surface aesthetic associated with structural foam molding can be exploited to obtain a wood-like effect through additives, material coloring and tool engraving.

**Co-injection molding** is the technique of injecting two materials (usually the inner material is enriched with a chemical foaming agent) into a mold in a controlled sequence in order to produce a thick molding with a compact outer skin and an inner core of structural foam. Co-injection molding is the best way of manufacturing thermoplastic items with a section of 5 mm or more (0.2" or more), requiring a smooth impeccable surface. This particular process overcomes issues like warping, cracking, shrinkage and much of the built-in-stress found in conventionally molded thick components. Important savings can be achieved by using a quality material and coloring in the skin/outer layer while using recycled or lower grade materials in the core. Beyond the savings, brilliant technical solutions can be obtained by pairing compatible materials enhanced with different additives which leads to radically different properties in the skin and in the core while still working as one in a single component.

**Co-injection molding with Gas assist** is the technique of injecting two materials (usually the inner one enriched with a chemical foaming agent) into a mold and using high pressure gas to empty the core. This is one of the best ways of producing a very thick but lightweight component and the pairing of two different but compatible materials with different properties working as one. The foaming of the inner material is counterbalanced by the high pressure gas injected into the mold cavity creating a variable density wall that can be controlled by timing the gas injection (compact high density skin material on the outer visible wall, a lower density foamed 2nd material showing increasing higher density approaching the inner wall of the hollow core).

### Capabilities

- Parts and components up to 10kg [22 lb]
- Platens up to 1100 mm [43"]
- Columns up to 850 mm [33 1/3"]
- Min. Mold Thickness 300 mm [11 2/3"]





## What can we do for you? If you are a Designer...

Resin can be noble. There is no need for plastic products to look cheap, you can steer away from reinforcing ribs and flimsy unattractive thin surfaces. You can integrate substance into your design.

**IMAGINE** advanced simple rich tick forms that you can play with. Look at the infinite possibilities of plastic as an enhancement, not as an impoverishment, while still retaining low manufacturing costs and simple tooling when implementing your idea from sketch to realization.

*We could make it happen...*



## If you are an Engineer...

Dare to explore the combinations of different materials, enriched with different properties, but acting as one in a single component.

**THINK** of a roof tile with maximum UV protection in the surface and amazing insulation properties at its core. Dare to conceive in a single object an extreme impact resistant skin, with a remarkable structural rigidity at its core at affordable manufacturing costs...

*Our bread and butter...*

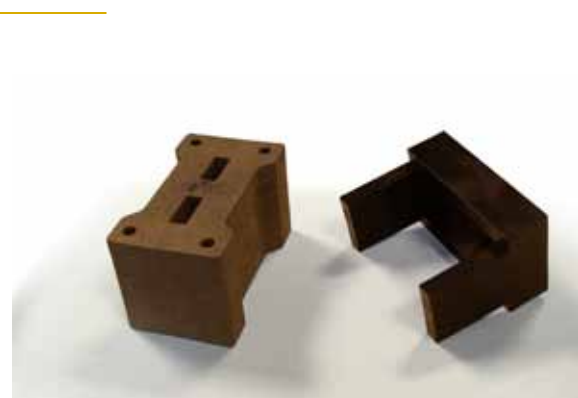


## If you are a Manufacturer...

Traditional parts can be beautified and re-designed at lower costs than in traditional injection molding.

**EASE UP** your tooling, there is no need to reinforce parts with ribs and incorporate expensive tricks aimed at thinning plastic components. Thanks to our low pressure processes, aluminum can be used instead of steel in the production of molds with lower capital investments. Consider the possibility of using recyclable materials inside and/or outside every single part, embrace the increased design and engineering freedom mentioned above, and we might definitely be a good partner for your new ventures...

**This is precisely what we can do for you...**



*IMAGINE...*

*THINK...*

*EASE UP...*

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