

## **Thermoset Molding for Appliance Applications**

As a custom thermoset molder, Woodland Plastics Corporation offers extensive thermoset molding services & expertise to appliance OEMs seeking molding materials durable enough to withstand harsh environments while retaining excellent aesthetic properties after thousands of hours of use. With high chemical and dimensional stability, molded thermoset components provide both performance and aesthetic benefits at a competitive cost vs. metals or similarly-performing engineered thermoplastics.

### **Aesthetics**

The first challenge for many appliance OEM engineers and designers is to design a part or component that consumers *want* to buy. Appliance OEMs seek out the best-looking, most vibrant products they can put to market in order to maximize sales and market share. Utilizing thermoset materials in your product design may provide the following aesthetic benefits:

- May be matched to nearly any surface finish or color standard
- Resistant to scratches, stains, blistering, and chemicals or other cleansing agents
- Are able to keep a highly aesthetic look after thousands of hours of use when exposed to excessive heat or weather conditions



## **Functionality & Durability**

In addition to looking great for a long time, appliance components must offer excellent functionality and performance characteristics throughout the life of the product. While engineered thermoplastics may melt or disfigure when exposed to harsh environments, thermoset components:

- Offer outstanding thermal stability, even after thousands of hours of use
- Can take on high operating temperatures without diminishing dimensionally or chemically
- Provide excellent resistance to corrosion, moisture absorption, & UV exposure
- Offer a high strength-to-weight ratio
- May be certified by UL with a flame rating or FDA approved as food-contact safe



## **Cost Savings**

Without substantial cost-savings, there would be minimal argument to implement thermoset materials into your appliance application. Fortunately, thermoset components can offer much lower overall manufacturing costs vs metal or thermoplastic components. Major cost benefits of thermosets include:

- Part consolidation, limiting the # of components in a product assembly
- Lower part weight over metal components
- Excellent mold-ability, limiting or eliminating secondary operations and machining
- Stable material costs, allowing for more accurate cost forecasting