Woodland
PLASTICS CORPORATION
Your First Choice Thermoset Molder

1340 W. National Avenue, Addison, IL 60101 Phone: (630) 543-1144 Fax: (630) 543-1525

Metal-to-Thermoset Conversion

Why should an Engineer switch from a Metal to a Thermoset?	Thermoset components offer a number of benefits over metal counterparts, including lower overall manufacturing costs, lower part & assembly weight, resistance to corrosion, and available molded-in tolerances, color and surface finishes.
How do Thermoset components cost less than Metal counterparts?	Thermoset components provide lower tooling costs, part consolidation, and molded-in tolerances that eliminate costly secondary machining processes. Additionally, metal prices have historically been much more volatile than thermoset composite prices. Another big cost savings in favor of thermoset components is a much lower assembly weight.
What are industries that have benefitted from Metal-to-Thermoset conversion?	Due to the weight savings, the Automotive industry has been an early adapter of using thermoset components for a variety of under-the-hood applications for some time. More recently, the Electrical & Lighting industries have enjoyed switching to thermosets due to superior dielectric strength and thermal insulation, while the Appliance industry has been drawn in due to higher design flexibility, part consolidation, and thermal performance.
What are common components that have been switched from a Metal to Thermoset?	**Automotive**: Powertrain engine & transmission components, ash cups, pulleys, thrust washers, solenoids, headlamp reflectors, & power steering components. **Appliance**: Knobs, handles, motor housings, vent trims, control panels, housings, and bases. **Electrical/Lighting**: Electrical housings & enclosures, circuit breakers, insulators, switches, relays, motor brush holders, slip rings, end caps, baffles.

Metal-to-Thermoset Conversion Benefits:	• **Low Costs** • **Part Consolidation** • **High Strength-to-Weight Ratio** • **Superior Electric Insulation** • **High Dielectric Strength** • **Higher Dimensional Control** • **Low Thermal Conductivity** • **Low Shrink & Creep**	• **Design Flexibility** • **Molded-in Tolerances & Color** • **Molded-in Surface Finishes** • **Resistance to Corrosion** • **Resistance to Heat** • **Resistance to UV** • **Sound & Vibration Dampening** • **Greater Specific Gravity**

ISO/TS 16949:2009 & ISO 9001:2008 Certified