

Beware... Plastics Aren't Always What They Seem To Be

Plastics International has had a long history of stocking 30% GF Ultem for one of our OEM customers. Their Machine Shop vendors were directed to order the material from Plastics International to ensure the material would be consistent for quality, responsibility and traceability for the life of the project.

A couple years into this project, one of the machine shops had quality problems with their 30% GF Ultem parts. When these parts failed to pass QC at the OEM, the machine shop sent the rejected parts back to us for credit and replacement material. The OEM Company requested that Plastics International supply a corrective action response for the cause of the machine shop's material failure. We had the rejected parts evaluated by the test lab and discovered that an unknown filler had been added to the 30% Glass Filled Ultem's base resin. Since our 30% GF Ultem did not contain the unspecified filler, we knew it wasn't purchased from Plastics International.

Plastics International called the machine shop and discussed the findings of our evaluation process and asked them to check their purchasing records. After checking their records, the machine shop apologized because their buyer had mistakenly ordered the defective material from Coyote Plastics.

(Coyote Plastics is a fictional name we use to represent those Plastics Distributors who not only sell plastics to machines shops...they also have in house machining...or they own their own machine shop. Coyote Plastics uses their internal machining capabilities to compete for fabrication business against their machine shop customers.)

The filler was present as the result of Coyote Plastics using a lower cost manufacturer who provided a modified 30% GF Ultem resin. In doing so, Coyote Plastics was able to accomplish 2 positives and 1 negative. Unfortunately, it was a Big Negative.

1st Positive: The filler made the GF Ultem easier to extrude...possibly at faster speeds and with less abrasion on extrusion dies.

2nd Positive: The added filler also lowered the overall resin cost of the GF Ultem, allowing Coyote Plastics to sell it at a cheaper price.

Big Negative: The filler material also lowered the published and specified physical property values of the GF Ultem, resulting in part failures from the intricate machining and application requirements. As a result of trying to lower their material costs, the machine shop ordered from the wrong vendor, received the wrong material and wrongly certified to the OEM's specifications. It was a costly mistake. As a consequence the machine shop's reputation was damaged and it negatively impacted their business.

We can quote lower cost resins too. However, before doing so, please consider the risks in using lower cost resins (which can lower the material's physical properties and increase the chances of non-conforming parts or failures in the field). Instead, Plastics International can help you with our large inventory of quality materials, cut to size yielding and no minimum order to meet your most demanding specification requirements with minimal risk.

There are reasons why plastics can vary significantly in cost and performance. Resins and extruded materials are available in different price ranges and from numerous sources. To protect yourself before problems arise, request material certifications and make sure they match your customer's specifications. Rejected or replacement parts are expensive and Plastics International pays close attention to material certification requirements so your raw material meets your end user specifications.