

CASE STUDY

HOW MODUS COMBATED SUPPLY CHAIN CHALLENGES WITH DEEP MATERIALS KNOWLEDGE

PROJECT HIGHLIGHTS

One of our OEM customers in the space industry came to us for a converting project with a very specific material in mind – necessary to finish their flightworthy build within a few short months.

This particular material is a high-performance, thermally conductive gap filler pad that provides superior heat transfer across a range of thicknesses while maintaining low compression forces and conformability between mating surfaces.

But sometimes, even the best of plans are brought to a grinding halt.

SUPPLY CHAIN CHALLENGES

With a purchase order in hand, Modus ordered the commercially available, globally sourced material to be converted into custom parts here in the United States. The estimated arrival time of this material was 12-14 weeks from our order date, approximately the end of June. However, the global supply chain had other opinions on that.

The globally sourced raw material was being produced at the supplier's overseas manufacturing facilities. Despite the global launch of this particular product, they were unable to produce it reliably.



This led to material production delays, which led to delays on our part in getting the material converted. It's worth noting that once a design is formalized, it's nearly impossible to change the details of it without having to rework the entire project. This is something that every project engineer fears having to do; after all, they've spent an incredible amount of time specifying this particular material, and are confident that it can get the job done.

Weekly, and oftentimes daily, updates to our OEM were difficult as we didn't have good news to pass to them. The material order sat on hold for months, until it was outright canceled.

ENGINEERING PROBLEMS SOLVED ON THE SPOT

When we received notice that the material order had been canceled, our team immediately notified the customer and hit the drawing board.

This project was now majorly delayed and without the material that was specified in the customer's drawing.



Getting parts done quickly and with incredible precision requires that we have access to a diverse supplier base. But beyond that, it demands that we understand materials in a deep way, which many manufacturers are unable to do. This is one of the many ways that we support our customers at the highest level.

We have several members on the team at Modus who have years of materials experience. This expansive knowledge benefits our customers in so many ways, and in this particular case, we were able to find another appropriate fit material. We leaned on our robust supplier base and subject matter experts to locate an alternative material.

We overnighted the alternative material and hand-delivered it to our customer the next day when their thermal engineers immediately began testing it.

Trusting our expertise and honest partnership, our customer prioritized this project and worked in lockstep with us. With the customer's permission, Modus ordered the material before we had a drawing in hand, confident in our alternative suggestion.

While waiting for the new material to arrive, we were able to iterate on the drawing and avoid deviation, saving our customer both time and money and reducing the headache they had faced.

Modus received an updated rev drawing within a week and once materials arrived, we were off to the shop floor to get the order done and out the door.

CONCLUSION

We always aim for materials to arrive on time and to avoid project delays, but that isn't always in our control. What we can control is how we respond to the situation at hand, always keeping our customers the priority. In this case, we were able to rapidly rectify a major material delay using our deep materials knowledge and robust, and trusted, supplier base. Together, we were able to get this project across the finish line.

We want to be active in our customer's qualification process and to help you find strong-performing materials that meet the needs of critical environments.

You need high-performing materials that fit niche parameters. And we're going to work with you to deliver them.

We're here to support our customers in bringing their life-changing and lifesaving projects to life quickly, without compromising on quality. It's the Modus way.

Your mission is our mission.

ONE DAY MATTERS

HELPING YOU DESIGN THE INNOVATIONS OF TOMORROW, TODAY

See how Modus can help redefine the traditional supplier relationship for you. Have an engineer review your design today and help you bring your next life saving innovation to market faster.

