



Bio-Based Epoxy Resin Systems

High Performing Resin from Renewable Resources

By using our bio-based resin, you can produce durable composite parts while also making a positive impact on the environment. Traditional epoxy products are derived from crude oil, while our bio-based products are derived from agricultural by-products. Performance remains a paramount objective for any CPD product. Therefore, we've ensured that our formulations meet your high manufacturing standards.

Sustainable Epoxy Applications

Vacuum Infusion or Resin Infusion

[CPD 3687A Resin with CPD 4286B Hardener](#) is a high bio-based content epoxy compound. This clear, low-viscosity compound is versatile and can be used for a wide range of applications including bonding, casting, laminating, resin transfer molding (RTM), and vacuum infusion. Notably, the CPD 3687A/4286B mix has a significant bio-based carbon content of 32%, making it a more environmentally friendly choice.

Resin Transfer Molding (RTM) & Wet Compression Molding (WCM)

[CPD 3686A Resin with CPD 3875B Hardener](#) is a latent, slower cure epoxy resin system designed for composite parts. It's primarily used in resin transfer molding and wet compression molding applications for mass production of parts but may also be used for cured-in-place pipe applications. This resin-hardener system has a bio-based content of 20-30% (ASTM D6866 results pending) and enhanced air release properties.

[CPD 3686A Resin with CPD 3874B Hardener](#) is a high bio-based, latent, medium-speed cure epoxy resin system also intended for composite parts. It's suitable for use in resin transfer molding and wet compression molding applications for mass production of parts and can be used for cured-in-place pipe applications as well. The system is 28% bio-based and features enhanced air release properties.

Laminating Resin Epoxy System

[CPD 2208A Resin with CPD 4205B and 4206B Hardeners](#) epoxy laminating system has a high bio-based content and low viscosity that may be used for a wide variety of applications. It has a simple 5 to 1 mix ratio by volume and easily wets out fiberglass fabric. Fillers such as phenolic micro balloons, colloidal silica or wood flour may be added to the epoxy resin to make compounds for bonding, fairing, filleting or filling.



Why Choose CPD Sustainable Epoxy Resin?

A Green Approach to the Composite Manufacturing Process

We're proud to offer you a system that integrates with your current processing, saving you from unnecessary capital expenses and avoiding potential waste. We can also offer a system that improves upon your current process that might aid in efficiency and support other green initiatives in your facility. This includes reducing run time on equipment, which results in less overall energy usage.



Long Lasting Finished Goods

While sustainably sourced materials are the focus of many green epoxy products, it's crucial to also consider the life cycle of a product. Other systems may incorporate non-functional, but renewable raw materials that do not contribute to structural integrity. In fact, these might even compromise the structural integrity of the finished good. The final component of our approach is to concentrate on the performance and structural backbone of the product. This way, our customers can deliver a long-lasting finished product to the end user.



Even though a long-lasting finished product may not be the first thing you think of when looking for a green resin product, it may be one of the most important. Here's why:

Municipal solid waste landfills are the third-largest source of methane gas emissions on the United States, having over double the environmental impact of coal mining¹. Reducing waste is one of the primary ways environmental experts recommend protecting our planet from the impact of climate change. We frequently hear the mantra, "REDUCE, REUSE, AND RECYCLE". By offering a longer-lasting product to your customers, you can support both the "reduce" and "reuse" initiatives.