

Guide: Solutions for High Temperature Injection Molding Cells

According to [Zion Research](#), global demand for high-temperature plastics was estimated to be \$82 billion in 2019 and is expected to reach \$124 billion by the end of 2026, which is a cumulative annual growth rate (CAGR) of 6%.

High-temperature plastics are defined as those capable of sustaining temperatures above 300° F (150° C). These plastics are more stable and more resistant to wear, ultraviolet exposure, fire, abrasion, chemicals, hardness, and more. That is why they are increasingly used in aerospace, medical, automotive, and electrical/electronic applications.

Zion Research adds: “Growing preferences of the manufacturers towards lightweight materials in construction and aerospace industry may drive the global high-temperature plastics market growth. High-temperature plastics are used as a replacement to metals in the various machine parts such as gears, pulleys and others; hence, showing a considerable market growth in the future. Automakers are extensively using high-temperature plastics in the manufacturing of body parts of the vehicles thus anticipating the market growth at a high pace. However, the higher cost of high-temperature plastics may hamper the global market growth.”

The Problem

High-performance, engineered plastics require higher mold temperatures than those used in traditional molding applications. These high temperatures are required to meet tight tolerances and high surface finishes, often



required for parts molded from high-performance resins. In many cases, high mold temperatures are also required to ensure parts have the correct physical properties post-molding.

Achieving high mold temperatures requires high temperature water and oil circulation systems, including water circulation systems capable of running up to 445° F, with oil units running up to 550° F. Both types of circulation systems pose challenges for processors, especially for those unfamiliar with operating molding cells with mold temperatures up to 400° F or higher.

The Solution

Download our [high temperature guide](#) to understand how to overcome these challenges. Highlights:

- The importance of a clean water supply for high temperature water circulation
- The system components needed to safely operate at high mold temperatures using either water or oil

- A resource to answer your questions and ensure you invest in the right solutions for high temperature molding

Plastixs has worked with hundreds of processors, supplying them with all the critical components needed to connect high temperature water and oil units to their molds.

Optimizing High Temperature Injection Molding

If you need help identifying the right [HiTemp solutions](#), Plastixs has many years of experience helping injection molders keep their molds running hot for demanding engineered resin applications – [contact us](#) today.

[Contact us to learn more about hi-temp molding](#)