



PLASTICS FABRICATION

Plastic Welding



Applications of Plastic Welding Techniques

In all plastic welding processes, heat is applied, causing the polymer chains to soften. Under pressure, the molecular chains of the components intermingle, and after cooling, a strong, permanent bond is formed. Only thermoplastics can be welded.

In hot air welding, plastics are joined together through controlled heating and pressure. A special welding gun heats the air to a temperature suitable for the plastic. The hot air is directed onto the plastic surfaces to introduce the heat into the weld seam.

In hot plate welding, also known as mirror welding, two plastic components are joined together in a butt joint without the use of additional welding material.

In ultrasonic welding, very precisely defined welds can be achieved. High-frequency mechanical vibrations are introduced via a sonotrode; friction in the joint zone generates the heat.

Plastic welding is ideally suited for medical technology (sterile containers and devices), container and vessel manufacturing, as well as the semiconductor industry.

The main difference compared with adhesive bonding is that, in welding, the plastic components are fused together, resulting in a stronger and more durable connection. Weld seams are generally more leak-tight and more resistant to mechanical and chemical influences. Welding requires specialised equipment and process experience — both of which we have in-house. Adhesive bonding needs less equipment and depends heavily on careful surface preparation. Welded joints are ideal for appli-



cations with demanding leak-tightness and strength requirements. BBC Cellpack Technology can produce gas-tight and liquid-tight welds.

Our Expertise

BBC Cellpack Technology has a long history in the machining of a wide variety of engineering plastics and metals and is certified in accordance with EN 9100, ISO 13485, ISO 9001, and ISO 14001.

Our Strengths

With its versatile range of machinery, an extensive network of technology partners, a certified quality management system with short decision paths, and proven experience in qualifying new manufacturing processes, BBC Cellpack Technology is ideally equipped to meet any challenge. We provide complete solutions from a single source and offer flexible delivery schedules, particularly when ambitious target dates such as product launches are approaching. Thanks to our trading business, we also have access to materials that are no longer available through standard supply channels.

Our controlled production environment delivers maximum precision. With our own manufacturing sites in Switzerland and the Czech Republic, we ensure business continuity for our customers.

We deliver solutions

with the highest level of manufacturing expertise.

Your benefits

- The complete solution from a single source.
- Technical leadership based on the highest level of manufacturing expertise and specific industry knowledge.
- Delivery reliability, even for special requirements.



ISO 9001 (Quality management)
ISO 13485 (Medical technology)
EN 9100 (Aerospace)
ISO 14001 (Environment)



BBC Cellpack Technology AG

Anglikerstrasse 99
CH-5612 Villmergen

+41 56 618 14 28

technology@cellpack.com
cellpack-technology.com

**Contact us for a
consultation!**

