

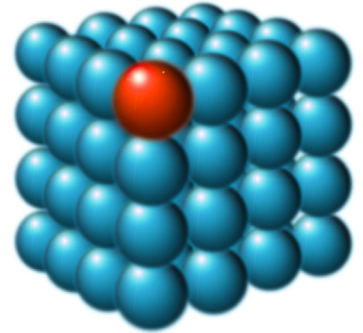
Tempering

Tempering a Form of Heat Treatment

What is tempering?

Tempering refers to the process of heating a material over an extended period of time (ranging from a few minutes to several hours).

The component is heated uniformly to just below its melting temperature. This increases the mobility of the molecules, allowing the structure to be optimized and structural defects to be eliminated. Any trapped gases (air bubbles) are expelled. Performance characteristics such as strength, chemical resistance, and heat resistance are improved.



How do I proceed? (3 phases)

1. Slow, uniform heating (maximum 20°C per hour)
2. Maintaining a constant temperature over an extended period of time
3. Very slow and uniform cooling

The duration of these steps and the temperature required depend on the materials used. You can find more information in our processing instructions, or give us a call—we'd be happy to advise you.

Special industrial ovens are used for tempering; ask a local paint shop if they can help you. However, you can also temper small parts in a standard household oven.

Not in your home oven.

Please note, however, that the temperature readings on the oven's controls are not accurate; use a temperature probe and preheat a test piece first.

Here's another tip!

Industrial plastic molded parts may contain residues of release agents from the manufacturing process, which prevent optimal bonding between the component and the plastic.

To remove these residues, preheat the parts for 1–2 hours at 60°C.



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