

INDUSTRIAL SCALE FURNACES

CHEMICAL GLASS TEMPERING FURNACE

Chemical tempering is one of the methods used to increase the surface hardness of glass. In this method, it is ensured that the sodium atoms in the glass are replaced with potassium atoms in the region close to the surface. This creates a tension on the surface. It gives strength and hardness to the glass. In the glass tempering furnaces produced by our company, the glass is heated by a constant temperature increase so that the glass is not broken by thermal shocks, then it is immersed in the salt bath. After being kept in a salt bath for a sufficient time, it is cooled slowly. All this is done automatically with a pre-installed program. Chemical glass tempering furnaces are designed according to customer requirements and glass holding baskets are designed by our company. Tablet, telephone, solar panel and television glass are examples of glass produced by chemical tempering. This method is a unique method for increasing the strength of thin glasses.

In order to change the mechanical properties of the materials, it is designed and manufactured according to the needs of the tests.

- Pilot-Scale usage
- Temperature: 700°C, Volume: 250 litre
- Top zone; for preheating and slow cooling control
- Bottom zone; for salt bath heating
- Protected automatic opening lid for salt bath, sample loading and removal
- Temperature measurement via protected thermocouples inside of furnace and bath
- Two- zone heating system
- Sample feeding system with lift
- Stainless steel sample basket



* The salt which is inside the furnace must not touch with water and with damp any pieces.
For long-term breakdown stays the salt may get solid. In this cases, it is better to pre-heating without a sample.