

MATSUNAMI's Technology (12 times in total)

Episode 7: Chemically strengthened glass

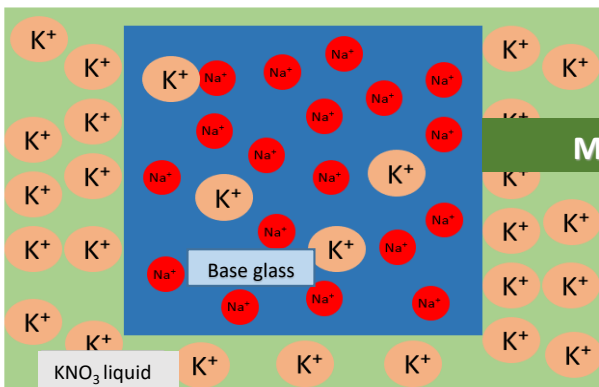


Chemical strengthening technology is used to add various function and value into glass. Special treatment can be performed according to various substrates. In addition, our chemical strengthening furnace can propose high-strength glass by setting conditions based on customer's required specifications. Its compressive stress value (CS) and stress depth (DOL) can be adjusted for each type of substrate.

Advantage

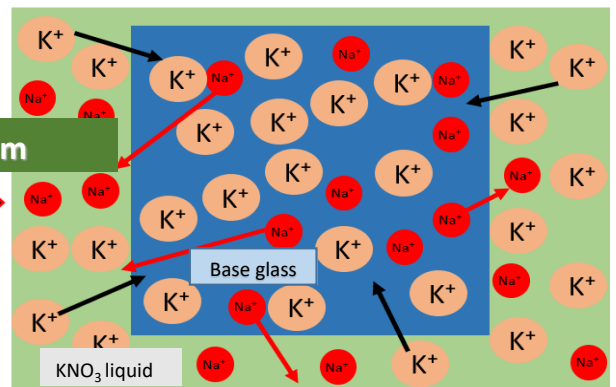
- Compatible with various display-related products.
- Wide variety of sizes from small to large.
- We can propose high-strength glass by setting conditions based on customer's required specifications according to product characteristics and requirements.
- Various thicknesses is available.
- Small volume for prototype processing is welcomed.
- Chemically strengthened glass will be precisely cleaned before shipping.
- Quality control is possible by controlling the surface compressive stress value.
- We accept contract processing of customer specified glass; including trial and mass production

Technology & Facility



Temperature condition is controlled under strain point (400°C-450°C) for customers' requirement specifications to make Na⁺ transfer into K⁺.

Mechanism



K⁺ ion is bigger than Na⁺ ion, so that compression layer will be constructed around the glass surface, then the glass is stronger not to be broken easily.



Chemical strengthening furnace

Ion exchange between Na⁺ and K⁺ is conducted in 400 °C ~ 450 °C chemical circumstance. Customer's specific requirement and various tempered glass are available.



Surface compressive stress meter

Quality control is possible by controlling the surface compressive stress value.

Size

MAX : 730x920mm

MIN thickness : 0.05mm (Available size will be discussed)