

J. B. TREASURE & Co. Ltd.

TOUGHENED GLASS

SODA LIME QUALITY

Toughened glass is soda lime float glass which has been converted to a safety glass by a process of pre-stressing, so that, if fractured, it disintegrates into small pieces. This process also increases the glasses impact strength, enables it to withstand higher temperatures and also increases its thermal shock resistance. Toughening glass generally increases its mechanical strength by five times. Pre-stressing is introduced into the glass by a process of heating and rapid cooling.

We can thermally toughen glasses horizontally, vertically, or by oil quench methods. Glass circles, squares rectangles, shapes and moulded glasses can all be toughened using one of the above methods.

Apart from glazing and transport, toughened glass is used in any application where strength, safety, and temperature resistance are important, for industrial, commercial, and domestic uses.

All toughened glasses manufactured by J B. Treasure & Co. Ltd. are produced in accordance with BS3463, BS857, and BS6206 and will pass all tests as described in those standards.

SPECIFICATIONS :

| | | |
|--------------------------|-----------|--|
| THICKNESS | | From 4mm to 25mm |
| SURFACE FINISH | | Float |
| SHEET SIZE | - MAXIMUM | Up to 2000mm(80") x 1000mm (40") |
| | - MINIMUM | 100mm ² in 4mm (Horizontally) |
| | | Below 25mm ² (Vertically) |
| MAXIMUM TEMPERATURE | | 300° C |
| THERMAL SHOCK | | 125° C |
| REFRACTIVE INDEX | | 1.520 |
| DESIGN BENDING STRESS | | 35 Mn /m ² |
| COEFFICIENT OF EXPANSION | | 7.6 to 8.0 x 10 ⁻⁶ /Deg K |

Glasses less than 3mm thick can be heat treated which, whilst not producing full toughening does increase the glasses strength and temperature resistance above that of ordinary glass.

For very thin glasses and for applications when surface finish is critical J.B. Treasure can also strengthen glasses using a chemical process.

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