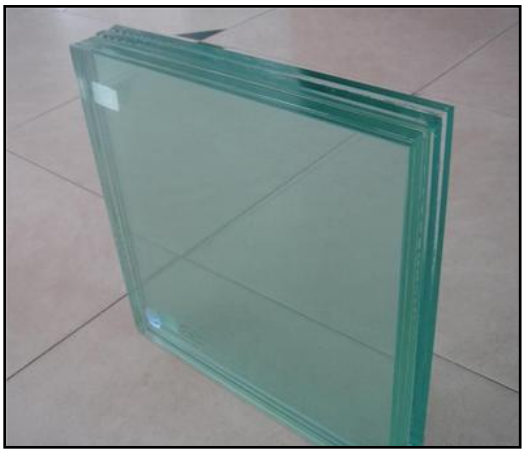
Moisture Control in Safety Glass Unit



"Safety Glass" is essential for automobile and construction industries. Safety glass is safe because it does not shatter on impact. A special thin, transparent plastic film is used as an adhensive between the layers of glass which holds the shattered glass together in the event of breakage. This films is hygroscopic and tends to absorb moisture during storage, prior to manufacturing and during the bonding process

Effects of Uncontrolled Humidity

The hygroscopic film absorbs moisture and leads to

- Improper bonding of two layers of glass
- Reduces clarity of the glass

Causes

The safety element consists of a special bonding between layers of glass with the internal thin layer film (PVB film). This PVB films is hygroscopic in nature and tends to absorb moisture during storage and assembling process.
The moisture gets trapped between the layers of glass, as bubbles. The trapped moisture reduces the clarity of the glass and the effectiveness of the bond between the two layers of glass, rendering the product unsafe.

General Recommendations

The RH level in the glass laminating area should be maintained at 20-22% with 20˚C.

Bry-Air Solution

Bry-Air Dehumidifiers have effectively maintained the exact conditions needed for safety glass. Desiccant dehumidifiers are an effective solution for humidity control at low temperature to prevent moisture regain. During manufacturing, storage and using laminating adhesive, the desiccant dehumidifier creates a low humidity environment making the safety glass safer.

Partial Reference List

- Asahi India Safety Glass, INDIA
- Asahi Glass Company, PHILIPPINES
- Abzony Safety Glass, INDIA
- Atul Glass, INDIA
- Chandralaxmi Safety Glass, INDIA
- Gulati Glass, INDIA
- Sunray Auto Glass, INDIA
- Reliable Safety Glass, INDIA