

Use of IG certificates

Insulating Glazing

The constitution of insulating glazing improves the insulation capacity of glass panels, without altering their essential transparency function.

This result is achieved by enclosing colorless gas, usually air or argon with low thermal conductivity and dehydrated, in a space between two glass panes.

Insulating glazing constitution

Insulating glazing is composed of at least two monolithic glass panes (annealed (clear or coated), laminated, tempered, etc.) held apart from each other by a spacer containing a desiccant, and industrially sealed using thermoplastic and/or elastomer mastic sealants, ensuring dual protection from water vapor. Manufacturers can request the lists of these constituents from Cekal.

Use of insulating glazing

The insulating glazing assembly is designed to preserve the luminance qualities and energy performance of the glazing in normal usage and maintenance conditions.

These glazing usage and maintenance conditions are described in Specifications that users can request from their suppliers; they must be complied with.

Purpose of the certification

The purpose of the certification is to attest to the means implemented by the production centre to manufacture high quality glazing. The characteristics examined during the controls and tests include:

- § **the durability** of the assembly sealing,
- § **the overall manufacturing quality** (precision of the elements, finishing),
- § **the acoustic insulation**,
- § **the thermal transmittance**.

Validity of the certificate

The certificate is issued to a production centre for a given assembly procedure and period. CEKAL attributes a number to each production centre (a 3-digit code).

The certificates are periodically renewed after independent bodies mandated by CEKAL have performed certain tests and controls.

The renewed certificates must be requested from the concerned production centres at the address indicated on the certificate.

Qualifications

These qualifications concern the additional techniques used by the production centre that are controlled during the inspections mandated by CEKAL.

These techniques can concern specific types of glazing referred to as:

- § **patterned**, comprising one pane with a patterned surface on the inside of the glazing,
- § **with trimmed coating** around their edges to ensure the glass/sealant bond,
- § **shaped**, due to their curved portions,
- § **non orthogonal**, with edges meeting at sharp angles
- § **with Georgian bars**, due to the incorporation of elements in

the space between the panes,

§ **gas-filled**, due to the filling of the space between the panes with a gas such as argon,

§ **triple gas-filled**, comprising 3 glass panes and 2 spaces filled with a gas such as argon,

§ **with incorporated blinds**, incorporating blinds in the space between the two panes,

§ **balanced**, due to the presence of breathers creating a balance between the outside air and the space between the two panes,

§ **pre-balanced**, due to the pressurization or depressurization of glazing to be installed at an altitude different from that of the manufacturing location,

§ **structural**, requiring UV-resistant seals and the stress verifications stipulated in the Regulations,

§ **point-fixed**, composed of glass products with drill holes usually in the corners, designed to be mechanically attached,

§ **renovation**, due to the presence of a profile surrounding the glazing to enable its installation in old glazing channels.

Marking on the certified products

The purpose of the marking is to allow product identification. It is indelible, and successively indicates:

- § **the manufacturing brand(s)** adopted by the production centre to identify its different product ranges,
- § **the manufacturing period**, with at least the semester and year,
- § **the certification reference** represented by the CEKAL marking, illustrating the production centre's commitment to ensuring that its glazing complies with CEKAL certification requirements,
- § **the marking extensions** indicating the specific usages of a product or its particular performances. These extensions concern specific glazing uses or performances.

Usage indicators

The letters E, V and R indicate the following:

E: glazing whose sealant's resistance to sunshine allows its use with exposed sealants (extruded strip, roof, etc.),

V: glazing whose sealant's resistance to sunshine and whose tensile strength have been verified in view of its use as structural glazing,

R: glazing whose resistance to humidity penetration has been verified in view of its use in a renovation profile.

Performance indicators

The codes AR, TR mean the following:

§ **AR**: marked on the glazing and followed by a number, indicates that the glazing's conventional acoustic performance is:

- AR1 = 25 dB
- AR2 = 28 dB
- AR3 = 30 dB
- AR4 = 33 dB
- AR5 = 35 dB
- AR6 = 37 dB

§ **TR**: indicates that the glazing's Ug coefficient is less than or equal to 2W/(m².K); TR followed by a number indicates the level of the glazing's Ug thermal performance according to the classification set up by CEKAL.