

INTEGRATED MANAGEMENT SYSTEMS	Çağdaş Cam – Warranty Terms Declaration	Document No: D-QM-001 Page 1 / 5
Prepared by	Reviewed by	
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The following guidelines must be carefully observed with respect to the production, storage, and installation of the products you have purchased from us. Our products are manufactured in compliance with the national and international standards listed below:

- TS EN 572-2 : FLOAT GLASS
- TS EN 572-5 : PATTERNED GLASS
- TS EN 1096 : COATED GLASS
- TS EN 1279 : INSULATING GLASS UNITS
- TS EN 12150 : FULLY TEMPERED GLASS
- TS EN 1863 : HEAT-STRENGTHENED GLASS

All warranty and complaint claims will be evaluated within the scope of the above-referenced standards.

TEMPERED GLASS (HEAT-STRENGTHENED / FULLY TEMPERED)

- Cutting, drilling, edge processing, or surface finishing operations (except sandblasting) are not permitted on glass after the tempering process has been completed.
- Optical distortions (distortion) visible only from certain viewing angles and under specific lighting conditions — including “tempering marks,” “bowing,” and “warping” within permissible tolerances — are inevitable and unavoidable consequences of the thermal processing. Depending on the installation height of the glass, the specified height (vertical standing dimension) must be declared at the ordering stage, and production must be carried out within the feasibility limits of the tempering feed parameters. For all tempered glass orders, the direction of the tempering run and the positioning of the glass on the tempering rollers must

be indicated with a technical drawing. In the absence of a provided drawing, our company reserves the right to determine the tempering direction.

- Roller Wave (Ondulation): When hot glass comes into contact with tempering rollers during the thermal process, surface distortions known as roller waves (ondulation) occur. These distortions are a physical consequence of the manufacturing technique and cannot be prevented. Such imperfections are more pronounced on highly reflective glass. Point or linear defects on tempered or heat-strengthened glass surfaces are assessed at a distance of 2 metres, perpendicularly, in shaded conditions on a sunny day (without direct light striking the glass surface).
- Due to the internal stress distribution within the glass, iridescence (anisotropy) occurs in tempered glass. The dark-colored ring patterns visible in polarized light and perceived depending on the viewing angle cannot be eliminated.
- Owing to microscopic Nickel Sulphide (NiS) inclusions that may be present in the glass, there is an inherent risk of spontaneous breakage in fully tempered glass. To mitigate this risk, fully tempered glass may be subjected to a Heat Soak Test (HST) as a pre-screening measure. While the Heat Soak Test does not entirely eliminate the risk of spontaneous breakage, it substantially reduces it. Should a Heat Soak Test be required for fully tempered glass, this must be explicitly stated at the ordering stage. Orders in which the Heat Soak Test is not requested will be accepted and processed without the Heat Soak procedure.
- Tempered glass is produced in compliance with the standard “TS EN 12150 / TS EN 1863 – Thermally Toughened Soda Lime Silicate Safety Glass for Use in Buildings.”

Çağdaş Cam accepts no liability for glass defects or damage arising from the conditions described above.

ENAMELLED (PAINTED) GLASS

- Unless otherwise specified, enameled glass is manufactured to be opaque (light-impermeable), intended for use in spandrel areas with concealed backs. If the glass is to be installed with an exposed back allowing daylight transmission, this requirement must be declared prior to placing an order or requesting a quotation.
- Painted glass (silk-screen, digital, or roller coating) is produced in accordance with our factory production standards. Specific requirements regarding this matter must be mutually agreed upon at the ordering stage.
- When light-colored enamel-printed glass is bonded into any unit using silicone or similar materials, shadowing effects may appear on the glass surface. Additionally, color and tone variations between small and large-format pieces may occur in light-colored enamel-printed glass. This does not constitute a production defect; it is a process requirement inherent to the thermal (tempering) treatment. Please consult our sales representatives regarding any color selections that may be affected by this condition.

- The technical feasibility of edge painting processes on soft-coated and other types of glass must be assessed prior to ordering. Çağdaş Cam accepts no responsibility for optical distortions or light-transmitting paint bubbles that may arise from such processes.

INSULATING GLASS UNITS (IGUs)

Product design, design details, and installation are not within the scope of our company's responsibility. Our company is solely responsible for manufacturing in accordance with the dimensions, thicknesses, glass combinations, and technical drawings provided to us. Installation responsibility rests entirely with the purchaser.

- Insulating glass units must not be stored in direct sunlight. Each pane of glass heated by elevated temperatures may expand and exert pressure on adjacent panes, potentially causing breakage. Additionally, colored or reflective glass units stored in direct sunlight are at risk of thermal breakage due to insufficient ventilation between the panes.
- If polysulphide or polyurethane has been used as the secondary sealant in an insulating glass unit, such units must not be left exposed outdoors (under sunlight) under any circumstances. Improper storage conditions of this nature may cause the secondary sealant to detach from the glass.
- The jointing areas between insulating glass units and window frames must be protected from moisture. The drainage holes within the frame profiles must be inspected and kept clear.
- To prevent damage to the secondary sealants of insulating glass units, direct contact between the glass and the frame profile or fixing screws must be avoided.
- Any works to be applied to the building's exterior facade or to industrial products must be completed prior to the glass installation.
- The adverse effects of applications such as dark-colored curtains, roller blinds, anti-fog films, stickers, and similar accessories — which may cause the purchased glass to heat up or cool down unevenly — must be communicated to the end user. Such applications may cause localized thermal expansion, which can result in glass breakage.
- Installation materials (structural/industrial silicone, hot-melt adhesive, weatherproofing silicone, etc.) that come into contact with insulating glass units during installation may, in certain cases, chemically react with the primary (butyl) and secondary sealants (polysulphide, polyurethane, IGU-filling silicone) used in the manufacture of the insulating glass units, causing deterioration. This phenomenon is commonly referred to as "butyl bleeding."
- All materials to be used in insulating glass installation (gaskets, structural silicones, weatherproofing silicones, joint-filling silicones, adhesives, etc.) must be free of acidic solvents and appropriate for the application and must not have exceeded their stated expiry dates. Installer companies are required to perform compatibility testing of the installation materials (gaskets, structural silicones, weatherproofing silicones, joint-filling silicones, etc.) with the secondary sealant (polysulphide, polyurethane, or silicone) used in the manufacturing of the insulating glass units. Relevant test reports must be made available upon request. In the event of damage or deterioration of insulating glass units arising from

the use of incompatible materials, the installing company shall be held solely responsible; Çağdaş Cam shall bear no liability.

- Tempered glass must be used for colored and reflective coated glass incorporated into insulating glass units. If the glass edges are damaged during installation (or if excessive pressure is applied to the glass edges), the glass may fracture during service due to thermal expansion stresses.
- At the ordering stage, the customer must declare the installation altitude and the maximum altitude the glass will pass through during transportation. Based on this information, our company will apply pressure equalization to the insulating glass units. Where pressure equalization is applied, the installation instructions will be communicated to the purchasing company in writing; the purchaser is responsible for the correct implementation of these instructions.
- Insulating glass units incorporating special spacer bar systems other than standard aluminum profile spacers or warm-edge spacers (such as U-profile or economy-type spacers) are not covered by the warranty.
- Edge deletion is applied to all soft-coated glass used in insulating glass units. Following the edge deletion process, color variations and linear marks may be visible along the edge zone. This does not constitute a production defect; it is a process requirement. Edge deletion width is limited to a minimum of 12 mm and a maximum of 36 mm. Any requirements beyond these limits must be agreed upon through sample approval at the ordering stage. Unless approval is obtained on a reference sample (witness sample), our company's standard specifications shall prevail.

Additional Conditions That May Cause Deterioration of Insulating Glass Units

- Damage to the secondary sealants of insulating glass units for any reason.
- Post-production modification of the glass dimensions of insulating glass units.
- On-site or production-line repair of insulating glass units.
- Insulating glass units with polysulphide or polyurethane secondary sealants must be protected from exposure to direct sunlight and/or precipitation.
- Products must be inspected upon delivery. Çağdaş Cam accepts no responsibility for external scratches, stains, breakages detected after delivery, edge chipping or flaking, or defects resulting from moisture exposure of the glass following delivery.
- Installation of glass with damaged or heavily chipped edges must be avoided.
- Units must be rested back-to-back against pallets; point loading must be avoided. Pressure variations may cause bulging, and excessive force loads of 2–3 times the rated load may result in breakage. Glass must not be stacked directly on concrete or earth floors, or in wet and humid locations.
- Products on pallets or in crates must not be stored outdoors. Storage must be in an enclosed environment with appropriate humidity and temperature conditions. Ideal storage conditions are: temperature between 9–25°C, relative humidity below 70%. Palletized or crated glass must be protected from water exposure caused by rain, snow, or other precipitation. Glass

that becomes wet during storage is at high risk of corrosion. Therefore, if condensation or any form of wetting occurs, the glass must be cleaned before it dries.

Çağdaş Cam accepts no responsibility for defects arising from failure to observe the conditions and guidelines specified above.

Additional Provisions Regarding Orders

- Prior to commencement of production, the customer must clearly specify product technical drawings and quality control acceptance criteria. Any special parameters or specifications not declared by the customer will be produced in accordance with Çağdaş Cam's internal acceptance criteria. Notifications made after delivery that fall outside Çağdaş Cam's stated specifications will not be accepted.
- Appropriate tools and equipment must be used when opening crates, in order to prevent damage to the products during unpacking.
- Products must be inspected on the vehicle and during unloading. If the strapping bands or wooden crates used in packaging are found to be damaged, do not move the glass and immediately contact your sales representative. In cases where transportation is arranged by the customer, Çağdaş Cam bears no responsibility for breakage or damage occurring during transit.
- In cases where transportation is carried out by Çağdaş Cam and transit-related damage (breakage/cracking) is identified, the purchaser must take the following steps before unloading the vehicle: (1) notify Çağdaş Cam in writing; (2) photograph/video the damage from multiple angles as directed; (3) obtain a damage assessment report signed in the presence of the vehicle driver and the logistics company's representative, and submit it to Çağdaş Cam. Çağdaş Cam shall not accept any claims arising from vehicles that were unloaded without our company's prior written notification, or from notifications submitted without photographs/videos and a signed damage report.
- Likewise, the glass surface must be inspected at the time of delivery for any scratches, stains, coating burns, or color deviations; quantities, dimensions, and product labels must be verified against the delivery note; and packaging and crate integrity must be confirmed. All findings must be recorded in the delivery receipt. Çağdaş Cam accepts no responsibility for claims made after delivery.
- In cases where lighting is to be used behind the glass product, the lux value of the light or LED to be used with printed or unprinted glass must be specified at the ordering stage. For products for which sample approval has been obtained, the approved reference (witness) sample shall serve as the production benchmark.
- The quality standards applied in our production processes are defined in the documents:

Çağdaş Cam Energy Glass Quality Standards / PR-QM-001

Çağdaş Cam Industrial Glass Quality Standards / KS-UU-01

Çağdaş Cam – Integrated Management Systems

Document No: D-QM-001 | This document constitutes an official declaration of warranty terms and conditions.