

# Certification scheme for insulating glass unit according to EN 1279-5:2018



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## 1 Purpose and scope

This certification scheme defines the procedures and requirements for the marking of insulating glass unit with the "ift-certified" mark. The product standard EN 1279-5:2018 forms the basis for the certification.

Based on the certification procedure and test method listed below, the essential product characteristics of insulating glass unit are ensured.

The conditions laid down in the "General requirements for certification, surveillance and inspection of products and services" by ift-Cert are specified or supplemented by the certification scheme.

## 2 Basis of testing and certification

This Certification Scheme lays down the requirements for certification and surveillance of insulating glass unit covered by EN 1279-5:2018. For certification and surveillance of insulating glass unit, ift-Cert must be provided with the following evidence or the following basis apply:

Test reports according to EN 1279-2:2018 (long-term mechanical performance), or equivalent historical documents containing all necessary information,

Test reports according to EN 1279-3:2018 (gas leakage), or equivalent historical documents containing all necessary information,

Test reports according to EN 1279-4:2018 (if they are to be used for the replacement of products according to the rules of EN 1279-1),

All test reports and evidence/verifications documents shall be issued by a testing body accredited to EN ISO/IEC 17025 and recognised by ift-Cert,

System description according to EN 1279-1:2018 for the intended purpose and/or use of insulating glass unit,

Documentation of the mandatory factory production control according to EN 1279-6:2018,

Contract with ift-Cert on certification and surveillance of production of the products governed by EN 1279-5:2018,

Requirements to be fulfilled by bodies certifying products, processes and services in accordance with EN ISO/IEC 17065.

### **3 Terms and definitions**

#### **3.1 Manufacturer/Licensee**

Legal entity that manufactures insulating glass unit from individual components.

#### **3.2 Licenser**

Legal entity that provides essential documentation on the use and manufacture of the components and leaves this documentation to third parties for further processing into finished components. The licenser provides the manufacturer with test documentation, specifications and guidelines for processing the individual components, updates on product changes and quality criteria of the processes.

#### **3.3 Insulating glass unit**

An insulating glass unit is a mechanically stable and permanently joined unit consisting of at least 2 glass panes, separated from each other by one or more spacers and hermetically sealed at the edges.

#### **3.4 ift Product passport with certified type list**

A summary report issued by ift Rosenheim, which determines the performance characteristics of the insulating glass unit specified by the manufacturer and confirms them by testing, calculation or evaluation. This can be used as a basis for the manufacturer's own type test (TT) as part of the CE marking.

The performance characteristics listed in EN 1279-5:2018 are summarized for the certified products in a type list released by ift Rosenheim. The type list includes layered structures (glass coatings) which are certified by ift Rosenheim or by a certification body recognized by ift Rosenheim.

In deviation from the standards EN 1279-5:2018 and EN 1096-4:2018, the tolerance value of the emissivity in this certification scheme is limited to 0.01. For coatings with a declared nominal value of coating  $< 0.02$ , the requirement is considered to be fulfilled if the average value calculated to 3 decimal places is  $< 0.020$ .

### **4 Procedure and contents of certification**

The general procedure and the contents of the measures required for initial certification and renewal of certification are documented by ift-Cert in the applicable "General requirements for certification, surveillance and inspection of products and services".


Sections 4.1 to 4.3 below describe the procedures for the certification of insulating glass units according to the European standard for a manufacturer with one production line, for a manufacturer with several production lines and/or production sites, and for a licensing procedure.

#### 4.1 Certification procedure for manufacturer

This section describes the certification procedure for manufacturers with a production line for insulating glass unit.

##### Procedure for ift Certification:

###### Manufacturer procedure

- 
- Evaluation of existing system documents
  - Issuance of ift Product Passport
  - Initial audit of production site
  - If the evaluation is positive:
  - Issuance of ift Certificate of Conformity


#### 4.2 Certification procedure for manufacturers with several production lines and/or sites

This section describes the certification procedure for manufacturers with several production lines and/or sites for insulating glass unit. This procedure is carried out according to clause 5.2.1 of EN 1279-5:2018.

During the initial audit, test specimens are taken for a short-term climatic test according to EN 1279-6:2018 Annex B to transfer the results of the initial inspection from the reference line to the manufacturer's other production lines or sites.

##### Procedure for ift Certification:

###### Manufacturer with several production lines and/or sites (Multiple Lines/Sites)

- 
- Evaluation of existing system documents
  - Initial audit of reference production site with evaluation of reference production line
  - Issuance of ift Product Passport for reference production site
  - 
  - Initial audit of further production sites
  - Basis: Technical production specifications of manufacturer
  - If the evaluation is positive:
  - Issuance of ift Product Passport for the other production sites or inclusion of the other production sites in the ift Product Passport of reference production site
  - and issuance of ift Certificate of Conformity for each production site

### **4.3 Certification procedure for licensor/licensee**

This section describes the certification procedure for manufacturers who manufacture insulating glass units under license and who, within a contractual relationship with a licensor, regulate the joint use of the certificates.

During the initial audit, test specimens are taken for a short-term climatic test according to EN 1279-6:2018 Annex B to transfer the results of the initial inspection from the reference line to the other production lines or sites of the licensee.

#### **4.3.1 Use of the documents of the licensor by the licensee**

The licensor of the insulating glass unit can pass on the use of test certificates or the use of the ift product passport to the licensee via the proven performance characteristics.

The licensee will be issued a manufacturer-specific ift product passport with a validity period of 3 years by ift-Cert after the requirements listed below have been met. Basis is the valid and current ift product passport of the licensor. Several production sites can be included in the product passport of the licensor. The following requirements are to be fulfilled or the following evidences are to be submitted to ift-Cert:

The licensee shall conclude a contract with the licensor allowing him to use the evidence and the system of the licensor.

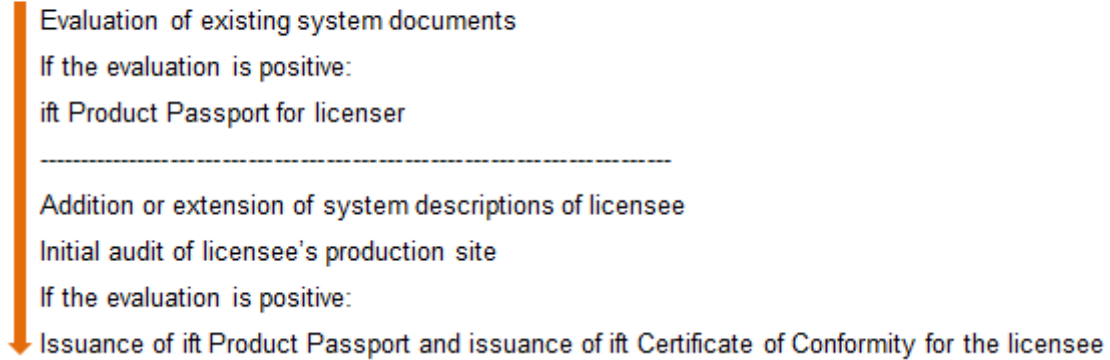
The licensor declares that the test specimens used for the initial test are representative of his system.

The products presented for testing by the licensor within the system test or the determination of the performance characteristics must be representative of the products produced. The licensee declares the conformity of the products with the tested properties. In case of deviations the transferability of the evidences and performance characteristics is to be confirmed by ift-Cert.

The licensee declares in writing to the licensor that he will manufacture the products in accordance with the licensor's specifications and will only use the components listed in the system description. Deviations require the consent of the licensor.

## Procedure for ift Certification:

### Procedure for licensor/licensee



#### 4.4 Initial test

Within the scope of the initial test, the manufacturer or the licensor must provide evidence of all product properties included in the certification in accordance with the applicable product, testing and/or classification standards. The possibility of using historical data is described in EN 1279-5:2018.

The necessary test evidences shall be issued by a testing body accredited to EN ISO/IEC 17025 and recognised by ift-Cert.

The test specimens are to be produced by a production facility that is certified and monitored by ift Rosenheim as part of the certification in this certification scheme. Sampling is based on the system description for all relevant product families. Samples for different product families can be taken at different production sites.

#### 4.5 ift-Product Passport

##### General:

Products listed in the ift Product passport can be manufactured from components that are included in the list of quality-assured components in accordance with the special RAL quality and test specifications RAL-GZ 520:2020.

##### For manufacturer:

The manufacturer of insulating glass unit receives an ift product passport after conclusion of the monitoring and certification contract and the positive evaluation of the test certificates within the scope of the initial test (see 4.4). The ift Product passport or its elongation is issued for a period of 3 years. Recertification is performed every 3 years. Within this recertification, all existing documents and proofs are checked for their validity.

**For licensor:**

The licensor receives an ift product passport after conclusion of the monitoring and certification contract and the positive evaluation of the test certificates within the scope of the initial test (see 4.4).

The ift Product passport or its elongation is issued for a period of 3 years. Recertification is performed every 3 years. Within this recertification, all existing documents and proofs are checked for their validity.

**For licensee:**

The licensee may receive an ift product passport (see 4.2) after conclusion of the monitoring and certification contract and the positive evaluation of the test certificates within the initial audit (see 4.6).

In the case of several production lines/sites, all information essential for the transfer of test certificates to ensure the performance characteristics of insulating glass unit, as well as the measures to be taken for this purpose within the factory production control, shall be documented. The documents shall be submitted to the certification body as an annex to the system description.

**4.6 Initial audit**

The objective of the initial inspection is to check the personnel and manufacturing conditions for manufacturing insulating glass unit on the basis of this certification scheme. Initial inspection includes the evaluation of the existing factory production control.

**4.7 ift Certificate of Conformity**

The product certificate is issued for a period of 3 years.

Recertification is possible for an extension of validity by further 3 years. As part of the recertification, ift-Cert shall evaluate the available test evidence/reports of the insulating glass unit system. If all certification requirements have been passed, the certificate will be renewed for a period of another 3 years.

The procedure for modifying or extending the certified scope as well as the suspension and revocation of certification is specified by ift-Cert in the applicable "General requirements for certification, surveillance and inspection of products and services".

The certificate remains valid only as long as the provisions and requirements of this certification scheme as well as the product as such remain unchanged. Any changes to the product that have an effect on the characteristics verified by the initial type test, shall be communicated to the certification body without being asked.

In case of failure to comply with the provisions and measures specified by this certification scheme, the certificate as well as the right of affixing the mark to the respective products, will be withdrawn.

#### 4.8 Marking

The products can be marked by affixing the "ift-certified" mark. The applicable documents listed in Section 2 - procedure and contents of certification - shall be observed. In addition to applying the mark on shipping documents, catalogues, technical documentation, advertising documents or packaging, marking may also be in a digital format.

If not all manufactured products are included in the scope of the ift certification (= content of the ift product pass), a distinction between certified and non-certified products must be ensured by the manufacturer (e.g. ift logo / ift contract number in the space between the panes or on the glass sticker). This labeling requirement can be omitted if the proportion of the products within the scope of the ift certification in the total production is 95% or more.

The right of affixing the quality mark expires automatically by terminating the certification and surveillance contract, or in the event of non-compliance with the criteria laid down by this certification scheme.

The labeling of the insulating glass types must be carried out according to the distinctions listed in Table 1. With regard to the typification, these requirements are based on the content of DIN EN 1279-5: 2018.

**Table 1** marking of glass units typer

<b>IGU Type A</b>	IGU without UV exposure or snow load (usual installation in windows / doors)	The marking of IGU type A / B / C must be present in the SZR
<b>IGU Type B</b>	An edge possibly with UV exposure without shear load (e.g. roof window)	
<b>IGU Type C</b>	All-round, if necessary, UV exposure and used in a bonded system with possibly existing snow load (e.g. SSG systems)	

These specifications do not apply if one type of insulating glass has a share of 95% or more in the manufacturer's production. In this case, the specifications from DIN EN 1279-5: 2018 with regard to the labeling of the insulating glass types apply.

## 5 Surveillance of manufacturer/licensee

### 5.1 Third party control

Contents, rights and duties are described by ift-Cert in the applicable relevant documents "General requirements for certification, surveillance and inspection of products and services".

The interval for surveillance is 1x per year.

Once a year, sample panes are also taken from the manufacturer's production for short-term climate testing according to EN 1279-6:2018. This does not release the manufacturer

from the obligation of periodic tests according to EN 1279-6:2018 in case of a component change within the interchangeability rules based on the product passport.

If a component is processed that is not yet listed in the ift product pass, an additional sample is taken with this component and checked at ift Rosenheim. This test is carried out in the form of a short-term climate test in accordance with EN 1279-6: 2018. If this component is still not listed in the ift product pass in the follow-up inspection, this will lead to a deviation and a negative assessment of the audit within the scope of the inspection.

If monitored coated glass products from an externally monitored coating company are used, a factory certification according to EN 10204:2004 on the solar characteristics according to EN 410:2011 and the emissivity according to EN 12898:2019 must be submitted. The Ug value can be calculated from this according to EN 673:2011. These values can be calculated on the basis of the above mentioned values with a validated program.

If coated glass products from an externally non-monitored coating company are used, the solar characteristics according to EN 410:2011 and the emissivity according to EN 12898:2019 are tested within the surveillance of the manufacturer of the insulating glass unit.

If defects are found during a regular inspection, they must be eliminated immediately or at the latest within 12 weeks.

## **5.2 Special test**

If serious defects are found during a regular inspection, a special audit is carried out at the manufacturer's premises within 12 weeks of this regular inspection. Non-compliant products may not be placed on the market.

The manufacturer must immediately notify ift-Cert in writing that the defects have been remedied.

A special audit can also be carried out if ift-Cert has reliable information that allows conclusions to be drawn about systematically inadequate product quality.

## **6 Factory production control**

The IGU manufacturer undertakes to establish a system of factory production control to assure consistent characteristics of the insulating glass unit. The manufacturer shall name an employee responsible for certification who has the authority, knowledge and experience in the production process of the insulating glass unit. This employee is responsible for due implementation of factory production control on basis of EN 1279-6:2018. If unallowed non-conformities are detected during factory production control, the person responsible for factory production control shall immediately initiate measures to eliminate such non-conformities or defects.

As part of the licensor/licensee procedure, the licensor has to:

- Specify a central system for FPC,
- Create, maintain and centrally control the technical documentation.