



**IKATES, s.r.o.**

Tolstého 186, 415 03 Teplice

## **CESTOVNÍ ZPRÁVA Z JEDNÁNÍ**

**NB-CPR/SG č. 09 „Sklo“**

**Účastníci:**                    **Bc. Michal Hnilička**  
   **Ing. Lubomír Hnilička**

**Datum konání:**            **5.6.2015**

**Místo konání:**            **Frascati, Řím, Itálie**

## **Úvod:**

Letošního zasedání skupiny SG09 „Sklo“ (v pořadí již 27. zasedání) jsme se zúčastnili jako zástupci oznámených subjektů (NB) ČR s možností čerpání finančních prostředků z Plánu standardizace – Programu rozvoje zkušebnictví na rok 2015 „Účast na jednáních vertikálních a horizontálních sektorových skupin (skupiny oznámených subjektů) pro nařízení Evropského parlamentu a Rady (EU) č.305/2011/EU (CPR), spojených s přípravou na jednání a účastí na zasedání skupiny.

(evidenční číslo objednatele: 051/2015/0030)

## **Program jednání:**

- 1. Prezence a úvod**
- 2. Schválení programu jednání**
- 3. Zpráva z minulého mítinku (12. prosince 2014)**
- 4. Návrh na mezilaboratorní srovnávací zkoušky podle ČSN EN 410 a emisivity (Domonique Libert a Christine Kermel)**
- 5. NB-CPR 15-639r1 Vzorkování v systému 1 a 1+ (vydáno na CIRCA 7. dubna 2015)**
- 6. Zkušební protokol s výsledky zkoušky tvrzeného skla – případ, kdy některé tloušťky nevyšly (Pan Yakut – dokument č.22/2015)**
- 7. Mezilaboratorní srovnávací zkouška – fragmentace - Tepelně tvrzené sodnovápenatokřemičité sklo. Výsledky (Pan Yakut, dokument č.21/2015)**
- 8. Návrh mezilaboratorní srovnávací zkoušky podle ČSN EN 356 – sekera, připraveno společností Tecnalía (Pan Stephen Biller)**
- 9. Poziční dokument DoP/CPR – Sg09 č. 13: nové zprávy od komise**
- 10. Dokument č. 7 – poslán na schválení Technickému sekretariátu CPD: aktuální stav**
- 11. Dokument č. 8 – poslán na schválení Technickému sekretariátu CPD: aktuální stav**
- 12. Závěr schůze**

## **1. Prezence a úvod**

Letošní první mítink skupiny SG09 byl opět pořádán NB Stazione Sperimentale del Vetro ve spolupráci s ENEA Research Center ve Frascati nedaleko Říma. Zúčastnilo se ho na 16 členů ze států Evropské unie (Německo, Itálie, Belgie, Francie, Dánsko, Česká republika) a Turecka. Jednání se účastnil i zástupce ENEA pan Stephane Inniori, který krátce pohovořil o kooperaci s italskou laboratoří Stazione Sperimentale del Vetro v oblasti měření, zkoušek autoskel, popř. optických zkoušek.

## **2. Schválení programu jednání**

Program byl přijat a schválen, jednání ke konkrétním tématům mohlo začít.

## **3. Zápis z minulého mítinku (12.prosince 2015)**

Zápis jsme prošli bez větších připomínek, pouze k bodu č.7 Mezilaboratorní srovnávací zkoušky podle ČS EN 356 – sekera, se pan předseda Mognato vyjádřil, že otázku kalibrace ještě nebylo možno diskutovat s komisí TC 129 – nový předseda dosud nebyl zvolen.

## **4. Návrh na mezilaboratorní srovnávací zkoušky podle ČSN EN 410 a emisivity (Domonique Libert a Christine Kermel)**

Tento návrh mezilaboratorních srovnávacích zkoušek přednesli zástupkyně belgické INISMy, které také budou zkoušky pořádat a výsledky zpracovávat a vyhodnocovat. Požadavek na tuto zkoušku vzešel jak od naší pracovní skupiny SG09, tak je i v harmonizované normě ISO/IEC 17025.

Budou se měřit sluneční a světelné charakteristiky a emisivita na 4-5 vzorcích (tvrdé povlaky, Low-E, float) při různých vlnových délkách, popř. se změří i odraz. Vzorky 50x70 mm připraví a rozešle INISMa.

S podobným návrhem přišla na minulém mítinku zástupkyně IFT Rosenheim, bohužel částka 1.000,- EUR nebyla žádnou z laboratoří akceptována. INISMa je schopna celou akci pořádit za 250,- EUR od každého z přihlášených subjektů.

## **5. NB-CPR 15-639r1 Vzorkování v systému 1 a 1+ (vydáno na CIRCA 7. dubna 2015)**

Slova se ujal pan předseda Mognato, poziční dokument jsme prošli a skupinově diskutovali. Zastavili jsem se u bodu 6.4 a 6.5 – odebírání vzorků přímo z výrobní linky nebo ze skladu. Možné jsou obě varianty, nicméně odběr přímo z linky oznámeným subjektem během auditu má několik výhod:

- nižší náklady pro výrobce, není třeba otvírat bedny s výrobky

- možnost sledování samotné výroby, získání detailních informací o výrobním procesu
- nejsou pochybnosti o originalitě vzorků

Dokument byl nedávno schválen, naše skupina k němu neměla výhrad.

## **6. Zkušební protokol s výsledky zkoušky tvrzeného skla – případ, kdy některé tloušťky nevyšly (Pan Yakut – dokument č.22/2015)**

S tímto příspěvkem vystoupil p. Mehmet Yakut (Turecko), který také dokument (vydaný v lednu 2015) zpracoval. Na minulém mítinku se bod projednával, nyní už je detailně popsán v dokumentu (viz příloha).

Jedná se o problematiku náhradních vzorků, pokud je nutné opakovat zkoušku fragmentace podle ČSN EN 12150-1 při nevyhovujících výsledcích. Postup:

- a) zkušební laboratoř oznámeného subjektu vydá protokol pouze pro tloušťky, které nevyšly. Vyhovující výsledky si ponechá laboratoř v záznamech, a po vyhovujících opakovaných zkouškách ve druhém kole je může vydat společně jako souhrnný vyhovující protokol
- b) počet kusů pro opakovanou zkoušku: pro každou nevyhovující tloušťku musí být 5 kusů, i když nevyjdou např. pouze dva
- c) po vykonání zkoušky fragmentace u nově dodaných vzorků se vydá protokol, musí být udán datum druhého dodání vzorků!
- d) zkušební laboratoř oznámeného subjektu si ponechá záznamy z nevyhovujících zkoušek

U zkoušky pevnosti v ohybu je počet náhradních vzorků u nevyhovující tloušťky vždy stejný – tj. pokud nevyjdou 2 vzorky tloušťky 6 mm, zadavatel dodá do laboratoře pouze 2 náhradní vzorky (viz tabulka v příloze).

## **7. Mezilaboratorní srovnávací zkouška – fragmentace - Tepelně tvrzené sodnovápenatokřemičité sklo. Výsledky (Pan Yakut, dokument č.21/2015)**

Pan Mehmet Yakut přednesl prezentaci s výsledky mezilaboratorních zkoušek fragmentace podle ČSN EN 12150-1, zkoušky se účastnilo 8 laboratoří z Německa, Dánska, Belgie, Itálie, Španělska a Turecka. Předmětem testu bylo zjistit počet úlomků tepelně tvrzeného skla ve čtverci 50x50 mm – bylo zkoušeno 5 sad vzorků tloušťky 4, 6, 8, 10 a 12 mm.

Výsledky byly poté porovnány a statisticky vyhodnoceny (průměr, odchylky, nejistota), pan Yakut s nimi seznámil účastníky jednání v dokumentu č. 21 (dokument je rozsáhlejší, z tohoto důvodu není součástí příloh).

Padl návrh na provedení mezilaboratorních zkoušek pevnosti v ohybu, společně jsme se shodli na tepelně tvrzeném skle tloušťky 5 mm. Informace o průběhu budou zveřejněny na příštím mítinku.

## **8. Návrh mezilaboratorní srovnávací zkoušky podle ČSN EN 356 – sekera, připraveno společností Tecnalía (Pan Stephen Biller)**

Téma srovnávací zkoušky odolnosti proti násilnému vniknutí podle EN 356 – sekera bylo diskutováno jak na začátku schůze, tak na předcházejícím jednání skupiny SG09 v Benátkách. Problémy zkoušky jsou se vzorky (náklady na výrobu a dopravu) a i s mechanikou zkušebního zařízení – kalibrace, obsluha. Pan Mognato pokládá tuto zkoušku za příliš náročnou a i nic moc říkající, nicméně na naléhání laboratoře Tecnalía se pokusí o její zajištění – výrobce, dopravce, zkušební laboratoře, technickou podporu.

## **9. Poziční dokument DoP/CPR – Sg09 č. 13: nové zprávy od komise**

S příspěvkem se přihlásil pan předseda SG 09 Mognato, problém byl také diskutován na předcházejících mítincích. Výrobci mají stále problém s nastavením Prohlášení o vlastnostech (Declaration of properties – DoP) a často žádají o pomoc oznámené subjekty. Příloha III CPR a nařízení č.1572014 neposkytují dostatek informací, aby vydané DoP splňovalo všechny požadavky. Příloha je všeobecná a málo konkrétní, pan Mognato proto adresoval dopis komisi, aby mohly být v normě uvedeny konkrétní případy a výrobci se jimi mohli řídit.

K problému se vyjádřila paní P. R. Nyegaard z technické komise – podle ní je Příloha III jasná, i když je všeobecná. Nicméně pro tyto případy byla vypracovaná dokument NB-CPR/AII-14/134 (tabulka/formulář), kde je možné se dotázat s konkrétním problémem (online). Dokument je stále ve stavu návrhu, nicméně už na příští schůzce technické komise může být schválena. Návrh je v příloze.

## **10. Dokument č.7 – poslán na schválení Technickému sekretariátu CPD: aktuální stav**

Dokument byl projednáván již na minulé schůzi, kde jsme se k němu společně vyjádřili a případně některé věty opravili či vyškrtli. Projednávali jsme ale otázku, co všechno může posuzovat oznámený subjekt. Pan Mognato dal podnět k diskusi, zda u výrobce izolačních skel, kde jedno ze skel je protipožární/neprůstřelné/explozi odolné, musí být proveden audit. Podle CPR musí, pan Mognato oponoval, že je to zbytečné, že se záměnou skla float za sklo protipožární/neprůstřelné/odolné proti výbuchu nemění vlastnost izolačního skla. Všichni účastníci jednání jsme se k tomu vyjádřili, my za ČR jsme panu předsedovi oponovali – jedná se o systém 1, audit musí být proveden.

## **11. Dokument č. 8 – poslán na schválení Technickému sekretariátu CPD: aktuální stav**

Dokument je stále ve stavu návrhu, byl již několikrát projednáván. Týká se výpočtu záření a tepelných vlastností buď zkušební laboratoří oznámeného subjektu nebo si hodnoty spočítá výrobce sám a oznámený subjekt ověří a validuje software použitý k výpočtu. Problém je v Příloze V: oznámený subjekt má posoudit (mimo jiné) i tabulkové hodnoty – Pan Dubru z Glass for Europe namítl, jak je možné posoudit jasně dané tabulkové hodnoty?! Toto vyústilo v rozsáhlou diskusi, zástupkyně technické komise nenašla odpověď – bude projednáno na dalším zasedání.

## 12. Závěr schůze

Termín následujícího mítinku byl předběžně navržen na září 2015, pravděpodobně opět v Itálii. Pan předseda Mognato nás bude ještě detailně informovat o přesném termínu a místě konání.



Zpracoval: Bc. Michal Hnilička

Příloha - projednávané materiály:

1. SG09 Agenda (program jednání)
2. Poziční dokument NB-CPR/15/639r1 – poziční dokument : vzorkování v systému 1 a 1+
3. Formulář GNB – CPR základní příručka
4. Poziční dokument NB-CPR/SG09 Doc. č. 10: sdělení výsledků zkoušek tepelně tvrzeného skla v případě, že nevyjde některá ze zkoušek
5. Poziční dokument NB-CPR/SG09 Doc. č.7: vyhodnocení shody certifikace pro sklo v systému 1
6. Poziční dokument NB-CPR/SG09 Doc. č.8: výpočet záření a tepelných vlastností pro sklo

<b>GNB-CPR</b>  <b>AG</b>	<b>Co-ordination of the Group of Notified Bodies for the Construction Products Regulation (EU) 305/2011</b>	<b>NB-CPR/15/639r1</b> Issued 07 April 2015 <b>Approved Guidance</b>
---------------------------------	---	--

## POSITION PAPER: Sampling in AVCP systems 1 and 1+

### 1 FOREWORD

When the assessment and verification of constancy of performance is done by means of testing, sampling is an activity of utmost importance for the credibility of the assessment and verification.

The sampling is considered the only link between the testing and the continuous production of the construction product.

Whereas the test results form basis for the *assessment of performance* of the construction product, the sampling information forms an important part of the basis for the continuing *verification of constancy of performance* performed by the notified product certification body.

The sampling procedure is expected to ensure that the samples originate from the manufacturing plant for which the manufacturer holds or applies for a certificate of constancy of performance and that the samples are suitable to represent the on-going production<sup>1</sup>.

To ensure that the samples are suitable to represent the on-going production, the sampling procedure shall provide sufficient documentation regarding the origin of the samples and regarding any basic property and any stage of production process with a potential to influence the performance of the product.

Which basic properties and which stages of the production process that may have potential to influence the performance will very much depend on as well the type of construction product as the performance characteristics to assess.

Without a properly conducted and properly documented sampling procedure, the testing and the test report cannot be linked to the continuously manufactured construction product and will not allow for the verification of constancy of performance of the continuously manufactured construction product.

The importance of the sampling is underlined by the fact that CPR Annex V explicitly includes sampling in the work of the notified product certification body under AVCP systems 1 and 1+.

CPR Annex V assigns the task of sampling to the notified bodies in the below cases:

- Sampling for testing as basis for assessment of performance of the construction product (both AVCP systems 1 and 1+)
- Sampling for audit-testing (only AVCP system 1+).

---

<sup>1</sup> This does not exclude the application of "appropriate technical documentation" in accordance with CPR Article 36.

## 2 SCOPE

This paper aims at giving general horizontal guidance to notified bodies regarding how to conduct and document sampling for testing under AVCP systems 1 and 1+.

Harmonised standards may include specific rules or circumstances to take into account for specific products. Such provisions shall always be respected and may prevail in case of conflicts with this guidance.

This horizontal guidance may also be supplemented by specific GNB guidance for specific products, product families, and/or for specific performance characteristics. Such specific GNB guidance may include information regarding which basic properties and which stages of the production process that may have potential to influence the performance of the construction product.

In this paper, distinction is made between *selection* and *sampling* (see *Terminology*). *Selection* is not covered by this paper.

Neither does this paper cover situations where the notified product certification body is requested to let testing (including sampling) already conducted by another body form basis for a certificate of constancy of performance.

## 3 REFERENCE STANDARD

EN ISO/IEC 17065 should be the preferred accreditation standard<sup>2</sup> for notified product certification bodies under AVCP systems 1 and 1+ once EN 45011 is superseded.

In EN ISO/IEC 17065, sampling is considered an “evaluation task” (see note of clause 7.4.3). Particular attention is drawn to the below clauses:

*7.4.1 Plan for the evaluation activities*

*7.4.2 Assignment of personnel*

*7.4.3 Availability of information*

To meet the requirements of EN ISO/IEC 17065, the notified product certification body needs to have documented procedures in place covering for example the conduct of sampling activities (including reporting) and the qualification of personnel conducting sampling.

If sampling activities are subcontracted, a documented procedure for the subcontracting must be in place.

---

<sup>2</sup> Other accreditation standards, such as ISO 17020 (inspection) and EN ISO/IEC 17021 (management system certification) can be used as evidence of compliance with requirements of CPR Article 43 in order to be designated as a notified product certification body. Irrespective of which standard a notified product certification body is accredited against, the notified product certification body shall also comply with the relevant parts of EN 45011 / ISO 17065

## **4 TERMINOLOGY**

### **4.1 Selection**

Selection is understood as the selection of the part of a product group from which samples shall be drawn for the purpose of covering the entire group of products.

The purpose of the selection is to ensure that the selected part of the product group is suitable to represent the product (to be) placed on the market. Normally, a worst-case approach is applied for the selection.

### **4.2 Sampling**

Sampling is understood as the taking of samples from the selected part of the product group. Sampling is normally done by random within the selected part of the product group (see 4.1).

## **5 TRACEABILITY**

The sample shall be traceable back to its origin(s) in the production, and to records of tests and inspections during the production process.

### **5.1 Records of test and inspections during manufacture**

The notified product certification body shall verify that records of tests and inspections are available and that all relevant product and process parameters are in conformity with the requirements of the harmonised technical specification and the documented FPC system operated by the manufacturer<sup>3</sup>.

## **6 SAMPLING LOCATION**

Some harmonised specifications have provisions regarding the age of samples, sampling locations etc. Such provisions shall always be respected.

### **6.1 Sampling for assessment of performance**

When testing for the purpose of assessment of performance, CPR Annex V does not require the sampling to be done at any particular location.

Normally, for the purpose of ensuring the traceability (see clause 5) sampling is done at the manufacturing plant.

---

<sup>3</sup> This verification may be done in connection with an inspection of the manufacturing plant and the factory production control; not necessarily in connection with the sampling.

The notified body may decide to conduct the sampling at other locations only if it can justify that the traceability is not put at risk<sup>4</sup>.

## **6.2 Sampling for audit testing**

For audit testing, CPR Annex V explicitly requires that the samples shall be taken by the notified product certification body at the manufacturing plant or at the manufacturer's storage facilities.

## **6.3 Non-conforming products**

Products marked by the manufacturer as non-conforming shall not be subject to sampling unless it is specifically justified and with the agreement of the manufacturer.

## **6.4 Sampling directly from the production**

With the agreement of the manufacturer, the notified product certification body may choose to sample directly from the production unit/line and not from the storage facilities. This is an option for as well assessment of performance testing as audit testing.

To sample directly from the production will often be advantageous:

- Less burdens for the manufacturer as it will not require any opening of larger sales units.
- Possibility to witness the production and thereby obtain detailed and secure 'real-time' information about the production process.
- No doubt possible about the origin of the samples.

Notified product certification bodies should however be aware that sampling directly from the production will only allow for sampling of products from a very limited time span.

## **6.5 Sampling from the manufacturer's storage facilities**

The most common sampling location is the warehouse of the manufacturer. When sampling from stock, the notified product certification body shall consider if the amount of material available is sufficient to allow for sampling by random.

The notified product certification body shall verify the origin of any sample with regard to production unit/line and time of production. The manufacturer's traceability system may be used for that verification.

---

<sup>4</sup> Notified product certification bodies should be aware that they have the full responsibility for ensuring the traceability of the samples back to their origin.

## **6.6 Sampling at other locations**

When sampling from other locations than the manufacturing plant or the warehouse/storage facilities of the manufacturer, the notified product certification body shall pay particular attention to the verification of the origin of the samples and to the traceability to records of tests and inspections.

For the purpose of audit testing, sampling from other locations than the manufacturing plant or the manufacturer's storage facilities is not allowed.

## **7 MARKING OF SAMPLES**

All samples to be used for testing purposes need to be suitably marked to allow a subsequent verification of the identity of samples.

The marking shall be indelible. In particular, if the notified product certification body itself is not taking care of the transportation, appropriate measures shall be taken to avoid that the markings are moved to a different sample.

The marking of the samples shall normally at least comprise the below information:

- A unique sampling code or number of the sample
- Date of the sampling
- Signature or initials of the representative of the notified product certification body conducting the sampling.

NOTE: For the purpose of verification of the identity of the sample, it may be helpful to take a photo of the sample after marking. Notified bodies should be aware that many manufacturers have strict rules on the use of cameras at their premises.

## **8 SAMPLING SHEET**

A sampling sheet shall be filled out during the sampling and shall at least include the following information:

- Manufacturer and manufacturing plant
- Place of sampling
- Traceability information, e.g. date/time of production, production unit, batch number, shift.
- Number or quantity of the samples
- Marking of the product by the manufacturer
- Marking of the samples by the notified body (see clause 7)
- Place and date of the sampling
- Signature of the representative of the notified body

- Counter signature of the representative of the manufacturer

It may be also be relevant to include the below information:

- stock or batch quantity from which the samples have been taken
- Results of tests and/or inspections during manufacture
- Essential characteristics to be tested
- Photos of the samples taken after marking

## **9 SHIPMENT OF SAMPLES**

Appropriate measures shall be taken to ensure that the samples are not deteriorated or changed during the transportation from the sampling location to the laboratory.

The notified product certification body itself may take care of the transportation and thereby make sure that the samples remain unchanged. Normally, this would only be possible for samples with a limited physical size or over limited distances.

If shipment of the samples is done by the manufacturer, a clear agreement should be made with the manufacturer on the below:

- Address of the laboratory (or other agreed location) to which the samples shall be sent
- Time frame for the shipment

## **10 TEST REQUISITION**

The notified product certification body shall draw up a written requisition for testing<sup>5</sup>.

The test requisition presumes that the laboratory is assessed by the notified product certification body as meeting the requirements of CPR Article 43 and that a written agreement subcontracting agreement has been made.

Moreover, it is presumed that the notified product certification body assumes full responsibility for the testing and that the agreement of the manufacturer is obtained.

The requisition shall be sent to the laboratory and shall at least include the below:

- A request to verify that the samples received by the laboratory correspond to the information in the sampling report, in particular with regard to the marking of the sample (see clause 7), signature of the person who conducted the sampling, and with photos enclosed with the requisition (if relevant)
- A specification of which tests to conduct
- The time frame for the testing

---

<sup>5</sup> Some certification bodies prefer to combine sampling sheet and test requisition into a single document.

- That all reporting is sent directly to the notified product certification body
- That the test report shall include reference to the requisition and/or the sampling sheet

For the sake of transparency, the manufacturer should receive a copy of the requisition.

## **11 SUBCONTRACTING**

According to CPR Annex V, the notified product certification body itself conducts both sampling and testing. This does however not exclude the possibility to subcontract the activities to other bodies. Subcontracting shall always be in accordance with CPR Article 45.

Subcontracting can only be done with the consent of the manufacturer and to subcontractors assessed by the notified product certification body as meeting the requirements of CPR Article 43.

To subcontract sampling, testing or any part thereof to the manufacturer would not be an option as the manufacturer would not meet the independency requirement of CPR Article 43(3).

# Reporting Test Results For Tempered Glass With Some Thicknesses Failed In Tests

## 1. Background

For thermally toughened soda lime silicate safety glass, thermally toughened borosilicate safety glass, heat strengthened soda lime silicate glass and so on, the relevant standards describe the fragmentation and the mechanical strength tests. In the standards the criteria for the assessment of test results are defined to determine the success or failure of the test specimens. The harmonized European accreditation standard, EN ISO 17025, and the testing standards explain what to include in the test reports.

However there are lacunae in standards for reporting several thicknesses in the same test report and in the same summary report for the test results. There is no problem if the test results for all the thicknesses in the range tested comply with the requirements of the relevant standard. Nevertheless, if some of the thicknesses of the product thickness range fail either in the fragmentation test or in the mechanical strength test, reporting becomes complicated.

Normally the customers ask for a full test report and a summary page which state that all the thicknesses in the range satisfy the requirements of the standards.

What will happen if some of the thicknesses fail in one of the tests? How will the reporting be done?

In the relevant standards there is no specific explanation for the retesting and reporting of the thicknesses failed in the tests for the range of several product thicknesses. There are ambiguities in the following areas:

- 1) Is a test report to be issued for the first run of tests including the failed test results as well as the successful test results? A summary of the test results is not to be issued since there are failures in some test results, isn't it?
- 2) How many test specimens for the mechanical strength tests are required for the second run? The same number of test specimens as in the first run or the total number of ten (10) specimens for the remaining failed thicknesses?
- 3) Is it proper to issue a single test report/summary for all test results for the two batches of test specimens provided that the batch number (or dates) of the successful specimens are written although delivery date of two batches of test specimens?

This paper aims to explain how to proceed with testing and reporting in case of failing thicknesses in either fragmentation test or mechanical strength test.

In this paper, a standard written procedure is being presented for sampling for the second run of testing and reporting for fragmentation and mechanical strength tests.

## 2. Scope

This paper aims at giving guidance to notified testing laboratories which are performing fragmentation and mechanical strength tests. This paper is not intended to describe the fragmentation and mechanical strength test methods but it aims to describe the testing and reporting procedure to be followed in cases of failures of some thicknesses of the product thickness range.

## 3. Reference Standards

The harmonized European standards for the tempered glasses are as follows:

EN 12150

EN 1863

EN 14179

EN 13024

EN 14321

The mechanical strength test method is described in EN 1288-3 Standard.

In the relevant clauses of the standards the test methods and assessment of test results are described for both tests..

The harmonized accreditation standard for testing laboratories, EN/IEC/ISO 17025, is applicable for all testing laboratories for reporting.

## 4. Procedure

As explained in the previous paragraphs there may be two cases: (1) Failure of some thicknesses in fragmentation test, (2) Failure of some thicknesses in the mechanical strength test. The procedures for both cases are described in the following paragraphs. The only difference between two cases is in the number of test specimens requested for the second run of testing. In the first case a fixed number of test specimens (5 pieces for each failed thickness) is requested and in the second case the proposed sampling scheme requests the same number of test specimens delivered for the first run.

### **Case 1: Failures in the fragmentation test**

1) Reporting the test results:

The notified testing laboratory will issue a test report only for the failed thicknesses, separately from the successful thicknesses. The test results for the successful thicknesses in the first run will be kept in the laboratory files so as to issue another test report together with the successful thicknesses at the second run.

- 2) The number of test specimens to be requested for the second test run:  
For each failed thickness, five (5) new test specimens are to be requested from the customer for the new test run.
  
- 3) After the second test run:  
After performing the fragmentation test for the newly delivered test specimens, a test report and a summary of the test results will be issued provided that the new test specimens satisfy the criteria imposed by the standard. In the reports it is important that the delivery date of the second round test specimens will be given, not the first delivery date.
  
- 4) The notified testing laboratory will keep the data for the failing first run test specimens in its records. No data regarding the physical properties, delivery date and test results will be deleted.

**Case 2: Failures in the mechanical strength test**

1) Reporting the test results:  
The same as above.

2) The number of test specimens to be requested for the second test run:  
For each failed thickness, the same number of test specimens as the original number of test specimens delivered in the first run will be requested from the customer for the second test run.

For example,

Thickness tested (mm)	# test specimens for mechanical strength test	Test result for the first run	# test specimens for the second run of mechanical strength test
4	2	Successful	-
6	2	Failed	2 (Not 5)
8	2	Successful	-
10	2	Successful	-
12	2	Failed	2 (Not 5)
Total	10	-	4 (Not 10)

3) After the second test run:  
After performing the mechanical strength test for the newly delivered test specimens, a test report and a summary of the test results will be issued provided that the new test

specimens satisfy the criteria imposed by the standard. In the reports it is important that the delivery date of the second round test specimens will be given, not the first delivery date.

- 4) The notified testing laboratory will keep the data for the failing first run test specimens in its records. No data regarding the physical properties, delivery date and test results will be deleted.

Mehmet Yakut

<b>GNB-CPR</b> <b>All</b>	<b>Co-ordination of the Group of Notified Bodies for the Construction Products Regulation</b> 305/2011/EU	<b>NB-CPR/AII-14/134</b> Issued: 23 December 2014 <b>Information</b>
------------------------------	--	--

### Input form – GNB-CPR Guidance Base

1	<b>Type of issue</b> (“H”, “SH”, or “V”)	
2	<b>Responsible group</b> (“SGxx”, “SHxx”, or “GNB-AG”)	
3	<b>Status</b> (Guidance or information)	
4	<b>Harmonised specification(s)</b> (EN xx xxx:yyyy or EAD no. xxxx)	
5	<b>Supporting standard references</b> (Number of standard(s) EN xx xxx:yyyy)	
6	<b>Question / problem</b> (Max 500 characters incl. spaces)	
7	<b>Answer / solution / Guidance</b> (Max 500 characters incl. spaces)	
8	<b>CPR reference</b> Article X(Y)	
9	<b>AVCP system(s)</b> System(s) 1+, 1, 2+, 3 and/or 4.	
10	<b>Accreditation standard references</b> Standard no., clause x.x	
11	<b>GNB-CPR reference</b> Document(s) no., clause x.x	
12	<b>Issue submitted by</b> (Name, e-mail address, date)	

### Submission of issues for inclusion in the GNB-CPR Guidance Base

Sector Group officials (chairmen and secretaries) may propose questions/problems and corresponding answers/solutions for inclusion in the GNB-CPR Guidance Base by filling in the above input form and submitting it to TechSec.

#### Guidance on the use of the input form.

1	<p><b>Type of issue</b></p> <p>Issues of general relevance to the work of several Sector Groups are considered "Horizontal" (H).          Fire related issues and issues related to dangerous substances which are relevant to the work of more than one Sector Group are considered "Specific Horizontal" (SH).          Issues of specific relevance to the work of one particular Sector Groups are considered "Vertical" (V).</p>
2	<p><b>Responsible group</b></p> <p>For horizontal issues (H), the responsible group is GNB-AG          For specific horizontal issues (SH), the responsible group is SHxx,          For vertical issues, the responsible group is the Sector Group covering the area.</p>
3	<p><b>Status</b></p> <p>If the issue concerns how notified bodies are supposed to conduct their work, the status would be 'guidance'.          If the issue does not directly concern the work of notified bodies, e.g. understanding of rules related to declaration of performance or testing under system 4, the status would only be "information" that notified bodies should be aware of and that they may pass on manufacturers and other interested parties.</p>
4	<p><b>Harmonised specification(s)</b></p> <p>One or more harmonised specification(s), to which the issue is specifically related. Should be indicated as EN xx xxx:yyyy or EAD no. xxxx) . For horizontal issues, the field is left blank</p>
5	<p><b>Supporting standard references</b></p> <p>One or more supporting standards, e.g. test or classification standards, to which the issue relates. References are given as standard number and version, ie. EN xx xxx:yyyy)</p>
6	<p><b>Question / problem</b></p> <p>A brief question or description of the problem. Shall not exceed 500 characters incl. spaces.</p>
7	<p><b>Answer / solution / Guidance</b></p> <p>A brief answer or description of the solution to the problem. References to other documents are allowed. Shall not exceed 500 characters incl. spaces.</p>
8	<p><b>CPR reference</b></p> <p>Reference(s) to any specific article(s) or recital(s) of CPR to which the issue is particularly relevant.</p>
9	<p><b>AVCP system(s)</b></p> <p>Indication of the AVCP system(s) to which to issue relates.</p>
10	<p><b>Accreditation standard references</b></p> <p>Reference(s) to any specific clause(s) of ISO 17025 (for testing) or ISO 17065 (for certification) to which the issue is relevant</p>
11	<p><b>GNB-CPR reference</b></p> <p>If the issue is dealt with by other GNB guidance, reference is made to documents (position papers) and if possible to specific clauses.</p>
12	<p><b>Issue submitted by</b></p> <p>Name, e-mail address where the submitter can be contacted and date of submission. Signature is not required.</p>

#### Approval process

TechSec will enter the issue into the Guidance Base and upload. TechSec may suggest changes to the text submitted before upload.

At the coming meeting of GNB-AG, the issues will be subject to approval. Until approved by GNB-AG, the status will be indicated as 'proposal'.

CPR TechSec - [Tech-Sec@dti.dk](mailto:Tech-Sec@dti.dk)

Anders Elbek

<b>GNB-CPR SG 09</b>	<b>Glass Sector Group Of Notified Bodies for the Construction Products Regulation (EU) 305/2011</b>	<b>NB-CPR/SG09-Doc.08 Draft 03-2014 Issued: 10.2014 For Comment / APPROVAL</b>
--------------------------	---	--

**SG09 POSITION PAPER: Calculation of radiation and thermal properties under all specifications for glass (CEN/TC 129)**

**PLEASE NOTE:**

Document circulated on d Mmmm 200x for comment back by d Mmmm 200x, on the basis that no comment assumes approval, to the following:

- All AG members via CIRCA including national mirror group representatives, who should consult with the relevant NBs before commenting, CEN and EOTA management, CEPMC, FIEC and UEPC and candidate country representatives;
- Commission Services (Mrs Ima Gómez López) direct;
- CEN Consultant (Mr Franci Ceklin) direct;
- CEN Management direct for forwarding to relevant CEN/TC secretary(s) and national standards bodies as appropriate;
- SG09 Chairman (Mr Ennio Mognato) direct, and;
- SG09 members via SG09 folder "What's New" in CIRCA.

Comments should be sent to CPR TechSec ([Tech-sec@dti.dk](mailto:Tech-sec@dti.dk)) and SG Chairman ([emognato@spevetro.it](mailto:emognato@spevetro.it))

1. The approval procedure for this paper will be as follows:
2. CPD TechSec will circulate the paper for comments by the above on the basis of "*no comment within 6 weeks means approval*".
3. CPD TechSec will forward all comments received to the SG Chairman who will be asked to accommodate the comments as far as possible.
4. If the comments are minor and result in minor changes to the text then a revised version will be circulated to all those making comments with an explanation – *the SG paper will be considered approved without further action*.
5. If the comments are significant, but not of a fundamental nature, and result in minor changes to the text then a revised version will be circulated to all those making comments with an explanation – *the SG paper will be considered approved if no responses of a fundamental nature are received within 4 weeks from those commenting*.
6. If the comments are significant and result in significant changes then approval for a revised version will be sent to the above ie back to "stage 1".
7. If clearly fundamental objections are raised at any stage; ie the position paper contradicts the CPD, Commission Guidance Papers and the Blue Book; then the SG will be instructed to change the paper to comply and a revised paper circulated.
8. Depending on the comments received the approval may be conditional eg the SG could be asked to monitor particular aspects to see if the issues raised in the approval process arise in practice and report back to AG at a specific time. Lack of complete detail on some matters in a SG position paper is generally not sufficient reason to withhold approval, but the SG may be asked to develop further guidance to amend the position paper in the light of experience by a certain date.

**Peder Fynholm**

CPD TechSec (email: [Tech-sec@dti.dk](mailto:Tech-sec@dti.dk))

TADULK'

# GNB-CPD position paper from SG09 - All harmonized standards for glass

## Calculation of radiation and thermal properties under all specifications for glass (CEN/TC 129) **General scope, limitations and aim of this guidance for Notified Bodies (NBs)**

This position paper contains guidance for Notified Bodies (NBs) involved in the attestation of conformity of the radiation and thermal properties of glass. The purpose is to help NBs work equivalently and come to common judgments. This guidance contains informative material (which NBs should or may follow) and/or normative guidance (which NBs shall follow or at least work equivalently to as circumstances demand).

This guidance is thought necessary to provide clarity and completeness for NBs so that they can work equivalently. It **supplements and makes practical for NBs** the harmonized standards, approved Advisory Group guidance, and Standing Committee guidance in the form of GPs, which also apply - unless otherwise explicitly stated in this guidance. This position paper should **not** contradict nor extend the scope of the work and role of a NB, nor impose additional burdens on the manufacturer, beyond those laid down in the CPD and the harmonized standards.

This guidance should be considered valid until the relevant standards are amended to include the guidance (as thought fit by the CEN/TC); or until guidance from Commission, SCC, and AG has changed on relevant matters. Whereupon, the paper should be considered for withdrawal/revision and be replaced by new guidance as necessary.

This position paper was considered approved by SG09 on 14 October 2008 and by Advisory Group on d Mmmm yyyy.

## 1 Introduction

EN 410:2011 'Glass in building - Determination of luminous and solar characteristics of glazing' is in part a measurement standard and in part a calculation standard. EN 673:2011 'Glass in building - Determination of thermal transmittance (U value) - Calculation method' is a calculation method based on input of the emissivity according to EN 12898:2001 'Glass in building - Determination of the emissivity'. The harmonized Annex ZAs of the standards for glass assign the initial determination of both radiation and thermal properties as tasks for a notified body (AoC system 3).

Under AoC system 3, the manufacturer requires an initial type testing (TT) report from a notified body. However, when TT is replaced by initial type calculation (TC), it may be acceptable for the manufacturer to undertake the calculation, and the notified testing body to verify the calculation method and validate the input data, as described in Commission Guidance Paper 'K' Annex 3 §3.3.2 for structural calculations. SG09 has determined that for calculations relating to the radiation and thermal properties of glass, a notified body may assess a manufacturer's product or calculation procedure and provide an TC report according to either of the following options, at the manufacturer's choice.

## 2 Option 1: calculation by a notified testing body

The notified testing body may execute the calculations itself and provide an TC report for the manufacturer.

## 3 Option 2: Assessment of the software by a notified testing body and further calculations by the manufacturer and verification by a notified testing body

The notified testing body may provide an TC report verifying the use of results of calculations executed and issued under responsibility of the manufacturer, when the following conditions are fulfilled:

- 3.1 Verification of accuracy of software/result via TC calculations, to be proposed by the notified testing body. The make-up of the calculations shall represent the manufacturers product, e.g. normally will included clear, heat-reflective and solar/visible-reflective coating families (and possibly laminated family type). In Annex A, reference spectral data has been supplied and that spectrum at least shall be evaluated for the validation of the software.
- 3.2 The difference in results (if any) should be evaluated on the reasons why there is a difference (only on calculation routines/reference not spectral data assessment)
- 3.3 The choice of software is for the manufacturer. However, if he uses multiple calculation programs, each program shall be evaluated separately. The notified testing body must be informed which program(s) the manufacturer has used for the calculations.
- 3.4 Where relevant the calculation shall be done for monolythical and for IG unit. The gas filling data parameters must be agreed (for IG unit)
- 3.5 On all calculations performed by the notified body and the manufacturer, the input data shall be consistent. The input data must be a part of the TC report.
- 3.6 The notified testing body shall make the comparison of manufacturer software results and notified testing body results, which shall be TC report. The version number of the manufacturer's calculation program and its date of release shall be given unambiguously to the notified testing body.
- 3.7 If the calculation routines of the program covered by the TC report are modified, the complete verification procedure must be repeated. Action and responsibility to initiate this lies in the hands of the manufacturer. The version number of the calculation program shall be reported in the TC report. However, if only changes to the layout are made, then the verification procedure need not be repeated, since this is considered to be a non-significant change to the calculation program.
- 3.8 If the manufacturer's calculation program is released for use by third parties, the verification procedure need not be repeated. For the input data, the normal procedures/agreements between supplier and clients can be applied.
- 3.9 Validation spectrum is given in annex A.

<b>GNB-CPR SG 09</b>	<b>Glass Sector Group Of Notified Bodies for the Construction Products Regulation (EU) 305/2011</b>	<b>NB-CPR/SG09-Doc.7 Draft 02-2014 Issued: 10.2014 Working Document</b>
--------------------------	---	---

**GNB-CPR : position paper from SG 09: Level for AVCP for processed glass**

**PLEASE NOTE:**

Document circulated on d Mmmm 200x for comment back by d Mmmm 200x, on the basis that no comment assumes approval, to the following:

- All AG members via CIRCA including national mirror group representatives, who should consult with the relevant NBs before commenting, CEN and EOTA management, CEPMC, FIEC and UEPC and candidate country representatives;
- Commission Services (Mrs Ima Gómez López) direct;
- CEN Consultant (Mr Franci Ceklin) direct;
- CEN Management direct for forwarding to relevant CEN/TC secretary(s) and national standards bodies as appropriate;
- SG09 Chairman (Mr Ennio Mognato) direct, and;
- SG09 members via SG09 folder "What's New" in CIRCA.

Comments should be sent to CPR TechSec ([Tech-sec@dti.dk](mailto:Tech-sec@dti.dk)) and SG Chairman ([emognato@spevetro.it](mailto:emognato@spevetro.it))

1. The approval procedure for this paper will be as follows:
2. CPD TechSec will circulate the paper for comments by the above on the basis of "*no comment within 6 weeks means approval*".
3. CPD TechSec will forward all comments received to the SG Chairman who will be asked to accommodate the comments as far as possible.
4. If the comments are minor and result in minor changes to the text then a revised version will be circulated to all those making comments with an explanation – *the SG paper will be considered approved without further action*.
5. If the comments are significant, but not of a fundamental nature, and result in minor changes to the text then a revised version will be circulated to all those making comments with an explanation – *the SG paper will be considered approved if no responses of a fundamental nature are received within 4 weeks from those commenting*.
6. If the comments are significant and result in significant changes then approval for a revised version will be sent to the above ie back to "stage 1".
7. If clearly fundamental objections are raised at any stage; ie the position paper contradicts the CPD, Commission Guidance Papers and the Blue Book; then the SG will be instructed to change the paper to comply and a revised paper circulated.
8. Depending on the comments received the approval may be conditional eg the SG could be asked to monitor particular aspects to see if the issues raised in the approval process arise in practice and report back to AG at a specific time. Lack of complete detail on some matters in a SG position paper is generally not sufficient reason to withhold approval, but the SG may be asked to develop further guidance to amend the position paper in the light of experience by a certain date.

**Peder Fynholm**

CPD TechSec (email: [Tech-sec@dti.dk](mailto:Tech-sec@dti.dk))

## 1 Introduction

According to the glass mandate, evaluation of conformity certification is mandatory required in case of CE declaration of fire-resistance, bullet resistance and/or explosion resistance as product to be placed on the market.

This position paper explains the depth of evaluation of conformity certification based on primary production of AoC-1 components used in IG units that are sold to the market under AoC-1 regime due to the annex ZA stipulations and in what situations lighter evaluation of conformity certification could be considered.

### Situation 1; primary production of the products AoC-1 classification:

1A Fire resistant glass products : full evaluation based on the relevant hEN

1B Bullet resistant glass products : full evaluation based on the relevant hEN

1C Explosion resistant glass products : full evaluation based on the relevant hEN

### Situation 1.A2-1; post-processing of a glass component that has already a fire resistant property into an IG unit: (TO BE DISCUSS)

In case the component supplier supports the product to be used in a particular and specified IG system then the FPC of the post-processor must be audited based on the implementation of the EN1279 in relation to the specific instructions of the system supplier. No repeat of fire resistance ITT is needed for the particular and specified IG system as defined. The fire resistance ITT report must be present in the CE technical file of the post-processor as well as the description of the specific and particular configuration. The audit of the FPC focuses then on that AoC-1 specific and particular configuration to verify that the post-processor handles the supplier scope, materials and instructions. The post-processor obtains his own CE certificate of evaluation and has to issue his own declaration of conformity since the post-processor is putting the product on the market. The post-processor must have its own EN1279-2/3 ITT report on the specific and particular IG system ~~with the fire resistant component as well as his normal other systems (if not overlapping)~~. **Consequence: evaluation is only based on implementation of the guidance documents of system supplier with impact on materials, processes and controls. ITT report on fire resistance as IG unit must be a part of it. ITT on EN1279-2/3 must be done, as normal, per manufacturer / system description. According to EN 1279 series rules.**

In case there is NO system supplier that issues the appropriate ITT on fire resistance as IG unit and scope of application and guidance of the relevant IG unit configuration/set-up, then the IG manufacturer is not a post-processor and the normal full rules as Not.Cert.Body are executed towards fire resistance. **Consequence: full evaluation based on EN1279 including fire resistance as IG unit.**

### Situation 1.B2-2; post-processing of a glass component that has already a bullet and/or explosion resistant property into an IG unit:

The post-processor puts the product on the market as bullet/explosion resistant IG glass according to EN1279 and this performance should be declared in DoP. As long as clauses of EN1279-5 are respected (placed on non-attack sides), it's accepted that the performance of the anti-bullet/explosion glass classification is applied to the IGU. Thus no TT's need to be done. The anti-bullet/explosion laminate supplier must of course have a valid CE certificate for his production on AoC-1 level. The AVCP could thus be done via a statement of the processor rather than an audit on site. The IG unit

manufacturer must have its own EN1279 TT's and FPC installed and also a DoP including these characteristics with a statement for the installation side. No third party audit needed. In case the IG manufacturer wishes to change position respect the attack side, then bullet/explosion TT on the IG unit shall be done but no third party audit is necessary.

Situation 23: post-processing of a glass component that has already a fire resistant property to a further lamination process or thermal treatment process:

In case there is a system supplier that issues the scope of application and guidance of the relevant (multi-)glass laminates configuration/set-up to this post-processor (internal & external), then the IG line must be audited based on the implementation of the EN14449 and the specific instructions of the system supplier. No repeat of ITT is needed, if the scope is validated and respected by the (multi-)glass laminates manufacturer without deviations outside the given scope by the system supplier. The post-processor obtains his own CE certificate of evaluation and has to issue his own declaration of conformity since the post-processor is putting the product on the market. The post-processor must have its classification report based on own ITT report. **Consequence: evaluation is only based on implementation of the guidance documents of system supplier with impact on materials, processes and controls. ITT report on fire resistance as IG unit must be a part of it. ITT on EN12543-4 must be done, as normal, per manufacturer / product family leader for laminated glass product, and in case of thermal post-treatments according to the correct EN standard (1863/12150/14179 etc)**

In case there is NO system supplier that issues the scope of application and guidance of the relevant (multi-)glass laminates unit configuration/set-up to this post-processor (internal & external), then the (multi-)glass laminates line must be audited based on the full evaluation and this (multi-)glass laminates manufacturer must define its own ITT and scope of applications and set-up its own specific configurations and FPC items towards fire resistance product implementation of the EN14449. The post-processor obtains his own CE certificate of evaluation and has to issue his own declaration of conformity since the post-processor is putting the product on the market. The post-processor must have its own EN12543 ITT report. **Consequence: full evaluation based on EN 14449/EN12543. The same applies for thermal post-treatments without any support of the component supplier that issues a AoC-1 component conformity.**

Situation 3: Post processing of tempered glass with fire resistance properties by HST

~~Single pane fire resistant glass product : post processing of the AoC-1 component with fire resistance to heat soaking process. Heat soaking can reduce/change the tempering degree and distribution in that way that no assurance of concept supplier can be assured. Heat soaking as post processing for fire resistant tempered glass, is thus almost impossible to be assured by the CE of the concept supplier. If possible then the normal full AVCPeC-1 certification shall be done. Consequence: full evaluation based on EN14179 (and EN's HST).~~