The European flat glass industry represents a little less than 16% of the global market for float and sheet glass (excluding rolled glass).

CEN TC 129 has been producing standards dealing with the definition and description of flat glass and processed glass products. Harmonised standards (hENs) that cover the “evaluation of conformity” of these products. Test and calculation standards that allow the ‘essential characteristics’ of the products to be determined. Standards covering applicable glazing methods have also been prepared.

Parties involved: flat glass manufacturers, glass processors, i.e. tougheners, laminators, coaters, insulating glass unit manufacturers, glaziers/installers, notified bodies, e.g. certification and testing bodies.

Benefits

Since 2000, 78 European Standards have been published.

The production of harmonised European standards (hENs) with their required procedures for factory production control and attestation of conformity ensures that the customer is buying comparable and fit for purpose products all over the EU thus allowing more transparency on the market.

Priorities

1. Finalise the review of all existing standards. This will necessitate the conversion of the published hENs from conformity with the Construction Products Directive (CPD) to conformity with the Construction Products Regulations (CPR).

2. Amend the Mandate M135 and answer to the mandate to encompass newer glass types and processed products, e.g. aluminosilicate glass, painted glass, acid etched glass, etc.

3. Introduce a work programme that will allow TC129 to deal with 'dangerous substances', i.e. Essential Characteristic 3: Health, hygiene and the environment, see M 135 Amendment 1 EN; December 2012.

4. Ensure that all countries are fully aware of the changes within the hENs as a result of complying with the rules of the Construction Products Regulation (CPR). Continue to ensure that member states do not implement changes to the standards that could create barriers to trade.
1 BUSINESS ENVIRONMENT OF THE CEN/TC

1.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal, societal and/or international dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this CEN/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

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Parties involved: flat glass manufacturers, glass processors, i.e. tougheners, laminators, coaters, insulating glass unit manufacturers, glaziers/installers, notified bodies, e.g. certification and testing bodies.

1.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the CEN /TC:

The flat glass industry covers the production of float, sheet and rolled glass as well as its processing and further installation in buildings.

Flat glass is either sold as a basic material or further processed by a multitude of independent or producer-related companies whose interests are represented by European associations such as Glass for Europe (Flat glass producers) and EAFTP (traders and processors). National experts represent glass manufacturers, glass processors, e.g. insulating glass unit manufacturers, tougheners, laminators, glass coaters, etc., and glaziers/installers.

At the end of 2013, 62 float tanks belonging to 7 different groups of companies covered the EU 27 float glass production. On the other hand, the processing and installation and glazing aspects of the sector are covered by thousands of smaller companies (mostly SMEs).

The capacity of a float tank can vary from 400 tonnes a day to more than 700 tonnes a day in the case of more recent installations.

In 2009, worldwide sales of float glass by EU 25 manufacturers amounted to approximately 8.320.000 tonnes. (source: Glass For Europe).

Of the 52 million tonnes of flat glass produced in 2009, over 29 million tonnes is high quality float glass. 3 million tonnes is satisfied by sheet glass production (a process where molten glass is drawn out of the furnace vertically and annealed. The product has a lower optical and visual quality when compared with float glass); and 2 million tonnes is rolled glass (a process where molten glass is squeezed between rollers to form sheets, usually with a pattern embossed on the surface). The remaining 18 million tonnes is lower quality float, produced mainly in China. (source: Glass For Europe).
2  BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC

In a more and more worldwide global business it is quite important that flat glass standards are harmonised as much as possible. One tool has been the preparation at European level of European Standards.

Another means is to transpose these standards as much as possible into ISO standards using the Vienna Agreement so that they become worldwide documents.

The production of harmonised European standards (hENs) with their required procedures for attestation of conformity also ensures that the customer is buying products all over the EU that are comparable and fit for purpose thus allowing more transparency in the market.

3  PARTICIPATION IN THE CEN/TC

All the CEN national members are entitled to nominate delegates to CEN Technical Committees and experts to Working Groups, ensuring a balance of all interested parties. Participation as observers of recognized European or international organizations is also possible under certain conditions. To participate in the activities of this CEN/TC, please contact the national standards organization in your country.

In order to achieve its objectives, TC 129 initially decided to set up 17 working groups dealing with:
- various glass products
- test and calculation methods
- glazing requirements

The chairmanship of these working groups has been entrusted to CEN Member States that retain the expertise in the various topics covered by the working groups.

All parties (e.g. flat glass manufacturers, processors, traders, glaziers, laboratories, testing houses,) interested in the standardisation process are invited to participate in the activities of the working groups.

As CEN/TC 129 is producing a series of harmonised product standards (hENs) together with supporting test, calculation or glazing rules standards, it needs to establish many liaisons with ‘application’ CEN TCs in order to prevent those TCs from erroneously interpreting the properties of flat glass. It would be much more effective if those TCs referred to CEN/ TC 129 standards when they have to refer to flat glass characteristics.

So far, CEN TC 129 has established liaisons with:
- TC 33: Doors, windows, shutters, building hardware and curtain walling
- TC 82: Solar photovoltaic energy systems
- TC 89: Thermal performance of buildings and building components
- TC 126: Acoustic properties of building elements and of buildings
- TC 127: Fire safety in buildings
- TC 163: Sanitary appliances
- TC 250 WG3: Eurocode for glass
- TC 349: Sealants for joints in building construction
4 OBJECTIVES OF THE CEN/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

4.1 Defined objectives of the CEN/TC

1. Finalise the review of all existing standards. This will necessitate the conversion of the published hENs from conformity with the Construction Products Directive (CPD) to conformity with the Construction Products Regulations (CPR).

2. Amend the Mandate M135 and answer to the mandate to encompass newer glass types and processed products, e.g. aluminosilicate glass, painted glass, acid etched glass, etc.

3. Introduce a work programme that will allow TC129 to deal with 'dangerous substances', i.e. Essential Characteristic 3: Health, hygiene and the environment, see M 135 Amendment 1 EN; December 2012.

4. Ensure that all countries are fully aware of the changes within the hENs as a result of complying with the rules of the Construction Products Regulation (CPR). Continue to ensure that member states do not implement changes to the standards that could create barriers to trade.

4.2 Identified strategies to achieve the CEN/TC.s defined objectives.

Some of the above objectives (1 and 3) are solely the TC’s and its working groups’ responsibility and pressure is put on the working groups to finalise their standards rapidly.

The TC also supports the work of Group of Notified Bodies - Sector Group 09: Glass in building that detects any areas in the standards that need to be clarified or further detailed.

The other objectives (2 and 4) depend on the outcome of discussions with CMC, the CEN Consultant and the European Commission representatives.

5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE CEN/TC WORK PROGRAMME

5.1 Resources for the drafting of standards

Historically CEN TC 129 had been fortunate to benefit from a financial support from the European Commission and EFTA as an encouragement to start work, prior to the mandate being given, on an agreed series of work items. Some TC working groups however were not financially supported. Moreover although quite welcome, the amounts involved did not cover the whole cost of producing the draft standards.

In order to complete our documents, we rely heavily on the goodwill of the companies and European trade associations to send experts to meetings and give them time to study documents, get informed on the consequences of the various EC and CEN guidelines or decisions and disseminate this information.
This goodwill is strongly influenced by the economic situation of the glass sector, which is going through important reorganisations. Our work and thus compliance with target dates is affected by this situation in so far as experts are allowed less and less time for standardisation activities. Also expertise is being lost due to demographic effects, e.g. retirements, company restructuring, etc.

5.2 CE marking in EU Member States

All of the published harmonised glass product standards (hENs) have been cited in the Official Journal.

CE marking commenced in September 2006.

CE marking of new products will be dependent upon the hENs being finalized in accordance with the new 'Annex ZA' that is Construction Products Regulations (CPR) compliant. This is still be discussed between CEN and the Commission and as such is delaying progress.

It is therefore quite important that CE making becomes the accepted requirement in all Member States and that countries do no modify their regulations in order to create new barriers to trade. The change in legal framework from the Construction Products Directive (CPD) to the Construction Products Regulations (CPR) is of primary importance in assisting in this objective. This change also facilitates the education of parties within the manufacturing chain, e.g. importers, distributors, etc., as to specific roles within the process.

J Brian Waldron
Chairman CEN TC129 : Glass in building