

BUSINESS PLAN

CEN/TC 132

ALUMINUM AND ALUMINIUM ALLOYS

EXECUTIVE SUMMARY

1. BUSINESS ENVIRONMENT OF THE CEN/TC 132

It may be hard to believe but only 150 years ago aluminium was considered to be silver from clay and an extremely expensive kind of metal. Today, aluminium ranks number two in the consumption volumes among all the metals, surpassed only by steel. In the coming decades the demand for aluminium will continue increasing at unstoppable rates. Recent developments in the motor industry, the rapid growth of cities, new potential uses of aluminium as a substitute to copper in the power industry – these and many other trends mean that the winged metal is well placed to strengthen its dominant position as a key structural material of the 21st century.

In 2014 global aluminium production have reached 54 mln tonnes. The ex-China aluminium market was in shortfall of 1.2 million tonnes. According to CRU and International Aluminium Institute in the first half of 2015 aluminium production in the world outside ex-China grew by 2% YoY to 13 million tonnes. This growth was mainly from Asia and the Middle East, with South and North America leading the decline in production. Overcapacity in the Chinese aluminium market continued throughout the first half of 2015. As a result total aluminium stocks in China in the first half of 2015 reached 2.65 million tonnes. From January to May 2015, Chinese installed aluminium capacity rose by 1.0 million tonnes per year to 36.545 million tonnes. The main change to the supply environment resulted from the export of aluminium semis from China. Net exports of semis rose by 47% YoY in the first half 2015. Due to a seasonal slowdown in the domestic market, aluminium product manufacturers had to export, even at a loss, in order to generate cash flow. As a result of both rising Chinese semi exports and growth of ex-China aluminium production, RUSAL estimates that the global aluminium market faces a minor surplus of 277,000 tonnes in FY15.

2. BENEFITS EXPECTED FROM THE WORK OF THE CEN/TC 132

The CEN/TC 132 aimed at developing:

- On-going revision of existing standards, such as those concerning terminology, pressure equipment and anodisation.
- Continued revision of terminology standards
- Revision of anodisation standards under ISO leadership, which complete corresponding set of EN standards.

The works of CEN/TC 132 will support the removal of technical barriers to trade and open markets throughout Europe by providing requirements, material specifications, technical data and test procedures.

3. PARTICIPATION IN THE CEN/TC 132

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.

4. OBJECTIVES OF THE CEN/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

The several applications of aluminium in different industries imply a need of standardization in this field. It helps to find an answer respecting the specificities of the aluminium properties and the use undertaken in different industry. The development of European standards will remove national barriers based on national standards. It also supports the European regulations in the different sectors where aluminium and its alloys are applied. The development of standards at the European level is the opportunity to enhance the aluminium sector, as a whole, to respect updated processes and regulations.

The CEN/TC 132 shows an important interest on environmental aspects in the review of its standards. Special consideration will be dedicated to the evolution of the regulations on environment (EU level and national level) within the scope of CEN/TC 132. At the beginning of the works, the technical committee will address to working groups key issues linked to environmental aspects. They will have to be considered by the experts in their works.

5 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE CEN/TC 132 WORK PROGRAMME

The objective of the CEN/TC 132 supposes a workload which should be managed according to the available resources. The stake stays in the identification of priorities and in the relevance of the works program. Convenors and secretaries play a key role in the achievement of the works. So, a specific effort should be consider training the WG convenors and WG secretaries on CEN procedures and PNE rules. Especially, focus should be on the respect of the timetable and deadlines.

1. BUSINESS ENVIRONMENT OF THE CEN/TC 132

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.

General on aluminium

Global aluminium demand in 2014 rose by 7%, mainly as a result of stronger demand in North America and China in the fourth quarter of 2014. At the same time, demand in emerging markets including Russia, Latin America and India showed lower consumption in the fourth quarter of 2014 and as a result missed expectations for the entire 2014 forecast.

In the first half of 2015, global aluminium demand rose by 6.3% to 28.6 million tonnes as a result of stronger demand in North America and the EU. Within the BRIC economies, the growth of Indian demand has been a key contributor to growth.

Demand for aluminium in North America improved by 5.6% in comparison with 2014. Statistics from the Aluminum Association indicate that the year-to-date new mill orders index increased by 5.8% in the first half of this year, whereas shipments of aluminium extruded products by U.S. and Canadian producers increased by 9.0%. Aluminium demand in Europe grew by 2.3% year-on-year. Turkey, Italy, France and Germany represent the key growth markets, respectively increasing consumption by 6.1%, 2.6%, 2.4% and 1.1%. Excluding China, primary aluminium consumption in Asia increased by 1.3% in 1H 2015 compared to the same period in 2014.

On the negative side, Japan's industrial output decreased in May by 4% YoY as a slowdown in the production of transport equipment and cars weakened the recovery. Industrial production in the Republic of Korea decreased by 2.8% YoY and 1.3% month-on-month in May. Automotive production in South Korea fell by 3.3% YoY in January-May 2015. Consequently, South Korea's primary aluminium consumption growth slowed to 2.4% in 1H 2015. China's primary aluminium apparent consumption was 14.6 million tonnes in 1H 2015, up by 10.4% YoY. Chinese GDP growth on a yearly basis was better than expected, reaching 7%.

Global aluminium demand growth in 2015 is expected to be 6% reaching 58 million tonnes.

Regulation and standardization

In standardization, the development of standards in relations with the following Directives:

- Pressure Equipment Directive 2014/68/EU (P.E.D.);
- Construction Products Regulation 305/2011 C.P.R.).

Industrial emission directive 2010/75/EU intended to replace previous measures on Integrated Pollution Prevention and Control, waste incineration and large combustion plants, among other things, came into force in early January 2011.

Stakeholders

Only few world companies dominate aluminium sector from the mining to the transformation process (including laminating process). Nevertheless, fundering and finished products fabrication are still dominated by specialized companies (sometimes SME's). The world market is under the control of few companies. Aluminium recycling is still developed at the local level due to the collecting process. Nevertheless, a trend to globalization appeared in the market of recycled aluminium.

World largest aluminium producers (2014)

	kt	%
UC Rusal	3 601	13.2
Chalco	3 380	12.4
Rio Tinto	3 361	12.3
Hongqiao	3 158	11.6
Alcoa	3 125	11.4
CPI	2 669	9.8
EGA	2 341	8.6
Xinfa	2 306	8.4
Norsk Hydro	1 958	7.2
East Hope	1395	0.51

1.2 Quantitative Indicators of the Business Environment

Productions features

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the CEN /TC 132 (Source: see http://www.aluminiumleader.com/economics/world_market/):

Aluminium consumption by industry (2014)

	kt	%
Transport	20 45	27
Construction	19 025	25
Foil and packaging	11 693	16
Electrical engineering	9 929	13
Machinery and equipment	6 852	9
Consumer goods	3 775	5
Other	3 926	5

Indication of cases where European Standards prepared by CEN/TC 132 are cited as normative references in European Standards of own and other CEN Committees

Indication of cases of governmental adoption of the CEN Committee's European Standards are cited into legislation, regulations or procurement requirements

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4. OBJECTIVES OF THE CEN/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

4.1 Defined objectives of the CEN/TC 132

Elaboration of CEN deliverables in the field of aluminium industry, taking into account the needs of the market in the field of unalloyed or alloyed aluminum, new products, new applications. CEN/TC 132 paid attention regarding:

- EU Directives like P.E.D. (Pressure Equipment Directive) and C.P.R. (Construction Products Regulation).
- Environmental aspects are taken into account for the elaboration of Standard, and this aspect is now subject of a standard (EN 15530).

Since 1988, more than 130 standards of CEN/TC 132 have been published. In the future, CEN/TC 132 will rather focus on the maintenance of these standards than on the creation of new standards. Revisions will take into account:

- New technical developments;
- The globalization of the market;
- Necessary alignments with other standards, e.g; the ISO 9000 series.

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

The objectives of the Technical committee are to review the existing standards in order to update their content considering the environmental aspects and the issues related to health and safety and the Industry's needs. A focus will be pointed on the existing or coming European regulations. The Industry will still keep the possibility to request the drafting of new standards in order to answer to its own needs. These requests will be examined respecting the CEN procedures. If approved by national standardization bodies, the technical committee will allocate new work items to its working groups. If necessary the technical committee will create working groups with relevant scope. Most of the European Standards prepared by CEN/TC 132 are in a field of Aluminium and aluminium alloys industries:

- In this frame, CEN/TC 132 obviously develops a panel of Standards cited in Business environment clause.
- A part of the EN Standards of CEN/TC 132 is based on ISO Standards or national Standards.

The CEN/TC 132 is composed by severam working groups as follow:

- CEN/TC 132/WG 5, Extruded and drawn products
- CEN/TC 132/WG 7, Sheets, strips and plates

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- CEN/TC 132/WG 9, Aluminium and aluminium alloys cast and wrought products in contact with food
- CEN/TC 132/WG 14, General support
- CEN/TC 132/WG 15, Anodization
- CEN/TC 132/WG 16, Aluminium alloys for marine applications
- CEN/TC 132/WG 22, Revision of EN 1559-4:1999
- CEN/TC 132/WG 23, Revision of EN 1676 and EN 1706

Within the framework of the systematic review, the CEN/TC 132 will review the existing standards in order to integrate new requirements related to health and environment protection. Others issues may be considered during the works if specific needs are identified. The works will be allocated to the existing WG. If necessary, new working groups will be created. In this case, call for convenor and call for experts will be launched. Precise scopes with detailed work program will be provided to the convenors of all working groups. In order to balance the workload of each working group, the technical committee will identify EN to be reviewed in priority considering the evolution of the regulation and the industry' needs. Working methods and CEN procedures will be reminded to WG convenors and secretaries. It will help to respect the time schedule defined by CEN rules.

Close liaisons with the other CEN technical committees have been established and liaison officers were appointed to attend or receive information on standards on aluminium and aluminium products, on standards describing uses of aluminium on standards on downstream products. Liaisons with ISO/TC 79 "Light metals and their alloys", European aluminium association and Aluminium association have been also established. These organisations are informed on the progress of the works undertaken within CEN/TC 132.

4.3 Environmental aspects

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As Aluminium is easily recyclable, there is already an integrated chain of companies recycling aluminium in Europe. It accompanies the sustainable production and consumption of aluminium and aluminium containing products. This aspect is presently a major characteristic of the aluminium sector.

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impacting the TC's scope may also be a stake for the experts in their standardization works. As the regulation is evolving continuously, a permanent effort should be undertaken to ensure the coherency between standards and regulations.