

On the activity of the Russian Standardization Technical Committee TC “Glass”

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Keywords:

1 = standards, 2 = Russian standardization, 3 = Technical Committee

Abstract

Standardization Technical Committee TC 041 “Glass” was established in 2009 by the Federal Technical Regulation and Metrology Agency. The main goals of the new technical committee will be realization of the Russian Federal Law from December 27, 2002 #184-F3 “About Technical Regulation”, improvement and enhancement of the glass industry standardization works in national and international scale.

The members of the TC “Glass” are 25 organizations and enterprises connected with development, manufacturing and application of the glass products in building and technical fields. The order of the Rosstandard fixes for TC “Glass” products with General Classifier codes 59 1000 “Glass for building and glass finishing agents” and 59 2000 “Technical glass”.

At the initiative of the TC “Glass”, National standardization program of Russian Federation in 2009-2010 widened by development of 26 standards for the glass and glass products. From these standards 23 were approved in 2010 and last 3 are planned for March, 2011. Currently Rosstandard examines proposals of the TC “Glass” to the National standardization program of RF in 2011-2013. These proposals include development of 18 standards in 2011, 11 standards in 2012 and 11 standards in 2013.

Introduction

Standardization Technical Committee TC 041 “Glass” was established in 2009 by the Federal Technical Regulation and Metrology Agency. The main goals of the new technical committee will be realization of the Russian Federal Law from December 27, 2002 #184-F3 “About Technical Regulation”, improvement and enhancement of the glass industry standardization works in national and international scale. The members of the TC “Glass” are 25 organizations and enterprises connected with development, manufacturing and application of the glass products in building and technical fields. The order of the Rosstandard fixes for TC “Glass” products with General Classifier codes 59 1000 “Glass for building and glass finishing agents” and 59 2000 “Technical glass”. According to mentioned above order, TC “Glass” also represents Russia in ISO TC 160 in addition.

The main goal of TC “Glass” is complete updating of the National Normative Base for glass and glass products with building and technical purposes. The way of this renewal is development of new National Standards and revision of the functional National Standards with maximum possible harmonization of requirements with the ISO and CEN standards requirements.

Realization of this plan must give us complex system of mutual agreeing and complementing standards for the glass and glass products. This system must cover all life cycle of the products starting from project and ending with utilization. Also we are building our standards system as basis for the safety and energy-efficiency of the products, competitive recovery of Russian manufacturers, development of international cooperation in the fields of designing, production and application of glass products.

The idea of the system took shape in the depths of the Russian glass community long time ago. In 2008 Glass Enterprises Union of Russia developed the National Standards Development Program which partially personified these thoughts. During the GPD 2009 we presented this Program in details. The Program was timed to 4 years and provided phased development of the 62 the most urgent and needed standards both new and replacing ones. These planned standards included wide range of norms from basic and common for all glass products as terms and definitions, control methods (tests and calculations), acceptance rules, storage, transportation and application rules to Specifications for the specific glass products.

The main text – Realization of the Program

However, realization date of the Program had to be expanded due to financial crisis and reducing of the financial activity in the norms development. So inclusion of the 26 glass-oriented standards development in the National Standardization Program of Russia for 2009 - 2010 came across as significant breakthrough. Considering that two thirds from the around 40 functional Russian standards for the glass products were approved before 1990 and “lifetime” of the certain ones are more than 30 years. For comparison, international normative base for the same products includes about 70 ISO standards and 80 CEN standards, and these standards are reviewed, renewed and supplemented by the new ones on a regular basis.

According to the Program, OAO Glass Research Institute developed the drafts of 26 standards and TC “Glass” introduced these drafts for the examination and approval of Technical Regulation and Metrology Federal Agency. 23 National Standards from the list (See Table 1) were approved in December 2010 with putting into action from July, 1 2012. Simultaneously with these standards putting into action 8 interstate standards of CIS and one National standard will be discontinued.

Table 1: New National Standards for glass and glass products

#	Label	Denotation	The closest international analogous standard	Discontinued standards
1	ГОСТ Р (GOST R) 54161-2010	Mirrors. General specifications	EN 1036-1:2007	ГОСТ (GOST) 17716-91
2	ГОСТ Р (GOST R) 54162-2010	Tempered glass. Specifications	EN 12150-1:2000, EN 12150-2:2004	ГОСТ (GOST) 30698-2000
3	ГОСТ Р (GOST R) 54163-2010	Glass and glass products. Test methods for resistance to climatic exposure. Frost resistance test method		
4	ГОСТ Р (GOST R) 54164-2010 (ISO 9050:2003)	Glass and glass products. Optical characteristics determination methods. Determination of luminous and solar characteristics	ISO 9050:2003	
5	ГОСТ Р (GOST R) 54165-2010 (ISO 10293:1997)	Glass and glass products. Thermal properties determination methods. Thermal resistance determination method	ISO 10293:1997	
6	ГОСТ Р (GOST R) 54166-2010 (EN 673:1997)	Glass and glass products. Thermal properties determination methods. Thermal resistance calculation method	EN 673:1997	
7	ГОСТ Р (GOST R) 54167-2010 (ISO 14438:2002)	Glass and glass products. Determination of energy balance value. Calculation method	ISO 14438:2002	
8	ГОСТ Р (GOST R) 54168-2010	Glass and glass products. Thermal properties determination methods. Determination of the emissivity	EN 12898:2001	
9	ГОСТ Р (GOST R) 54169-2010	Tinted flat glass. General specifications	EN 572-8:2004	
10	ГОСТ Р (GOST R) 54170-2010	Clear flat glass. Specifications	EN 572-8:2004	ГОСТ (GOST) 111-2001
11	ГОСТ Р (GOST R) 54171-2010	Laminated glass. Specifications	EN ISO 12543-4:1998, EN ISO 12543-5:1998, EN ISO 12543-6:1998, ISO 16933-2007	ГОСТ (GOST) 30826-2001; ГОСТ Р (GOST R) 51136-2008
12	ГОСТ Р (GOST R) 54172-2010	Insulating glass units. Method of determination of life circle	EN 1279-2:2002	ГОСТ (GOST) 30779-2001

#	Label	Denotation	The closest international analogous standard	Discontinued standards
13	ГОСТ Р (GOST R) 54173-2010 (EN 1279-4:2002)	Insulating glass units. Methods of test for the physical attributes of edge seals	EN 1279-4:2002	
14	ГОСТ Р (GOST R) 54174-2010 (EN 1279-6:2002)	Insulating glass units. Methods and rules of products quality assurance	EN 1279-6:2002	
15	ГОСТ Р (GOST R) 54175-2010	Sealed insulating glass units. Specifications	EN 1279-1:2004, EN 1279-2:2002, EN 1279-3:2002, EN 1279-4:2002, EN 1279-6:2002	ГОСТ (GOST) 24866-99
16	ГОСТ Р (GOST R) 54176-2010	Soft coating low emissivity glass. Specifications	EN 1096-1:1998, EN 1096-3:2001, EN 1096-4:2004	ГОСТ (GOST) 31364-2007
17	ГОСТ Р (GOST R) 54177-2010	Hard coating low emissivity glass. Specifications	EN 1096-1:1998, EN 1096-2:2001, EN 1096-4:2004	ГОСТ (GOST) 30733-2000
18	ГОСТ Р (GOST R) 54178-2010	Soft coating solar protection or decorative glass. Specifications	EN 1096-1:1998, EN 1096-3:2001, EN 1096-4:2004	
19	ГОСТ Р (GOST R) 54179-2010	Hard coating solar protection or decorative glass. Specifications	EN 1096-1:1998, EN 1096-2:2001, EN 1096-4:2004	
20	ГОСТ Р (GOST R) 54180-2010	Heat strengthened glass. Specifications	EN 1863-1:2000, EN 1863-2:2000	
21	ГОСТ Р (GOST R) 54181-2010	Glass and glass products. Test method for resistance to humidity		
22	ГОСТ Р (GOST R) 54182-2010	Glass and glass products. Salt spray test method		
23	ГОСТ Р (GOST R) 54183-2010	Glass and glass products. Test method for resistance to UV-radiation		

Another 3 National Standards drafts are in technical make-up editing and have to be approved in March 2011. Let's list them:

- 1) ГОСТ Р (GOST R) Glass and glass products. Fire resistance test method (close to ISO 834-1:1999, EN 1363-1:1999, EN 1363-2:1999, EN 13501-2:2007);
- 2) ГОСТ Р (GOST R) (ISO 16932:2007) Glass and glass products. Destructive-windstorm-resistant security glazing. Method of testing and classification;
- 3) ГОСТ Р (GOST R) (ISO 16940:2008) Glass and glazing. Sound insulation determination method.

Conclusion

Of course, not all these standards are in demand right now in Russia. Somebody may want to obtain another standard: for other types of products, testing methods etc. Somebody could be not fully agreed with the standards content and requirements in them. But it is well-known that the standard is the compromise between participants of development and approval process, and the shortest way between start and finish is not always a straight line. Taking into account that during previous 8 years from 2002 to 2009 there were only 4 developed or renewed and approved glass-oriented standards in our country, completed work is the great step forward on the way to main goal. We can just hope to reach it sooner or later.

For the conclusion we want to mark that the National Standardization Program of Russia for 2011 is not confirmed yet, but according to preliminary data it will contain about 20 glass standards. Besides this, we started to develop the Program of TC 41 "Glass" operations for 2012 – 2016, which will have to replace the acting program for 2008 – 2012.

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