

Official edition  
Of the Union of Composites Manufacturers  
With the assistance of the magazine  
«Composite World»

# Industry Newsletter

*You are working. We create conditions*

# Composite Materials



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**UNION OF COMPOSITES  
MANUFACTURERS**

## 1. THE UNION'S ACTIVITY

### Composites on the HANNOVER MESSE 2013



The main international industrial exhibition of the year – HANNOVER MESSE took place in Hannover (Germany) from 8 to 12 of April 2013 in which the leading world industrial companies and science and research institutes take part traditionally.

This year the exhibition was visited by about 225 000 visitors. Every fourth visitor was from the countries of the European Union (50%) as well as from the south – east and central Asia (20%).

In 2013 Russia appeared as the partner of the exhibition and the organization of the Russian exposition was supervised by the Minister of Industry and Trade of the Russian Federation. 170 companies from Russia presented their developments on the square 4.5 thousand square meters. Such amount of our enterprises has never participated in the industrial exhibitions abroad.

«This year the important and significant tendency is outlined: more than a half of the participants of Hannover are the small and medium size business. In Germany about 60 percent of GDP is formed by the small and medium size enterprises. In Russia their share in the production is still small but that fact that their heads think important to come to Hannover and promote their products on highly competitive European markets inspire the optimism» - noted the Minister of Industry and Trade, Denis Manturov on the press-briefing associated with the opening of the exhibition.

The Russian – German business – summit “Germany and Russia: opened markets for trade and investments” was conducted in the frames of the first day of the exhibition organized by the East Committee of German economy and the Ministry of Industry and Trade.



Answering the questions of the journalists after the Russian – German business summit the Minister of Industry and Trade Denis Manturov noted that it is uninspiring to copy the technologies and transform these technologies from country to country. It is interesting to create them together. And he made the real example of the possibility of joint development of the products from composite materials.

Denis Manturov underlined: «Today the technologies of the production of the products from composite materials that are used, for example, in the aviation structures, bridge cross-



ings, are actively developed; these products are 20 times lighter than conventional materials, 5 times lighter the steel one, the composites are durable, do not require annual capital repairs. I believe that the innovative solution that can be and should be offered to the international markets and of course we have already been actively using them in Russia at the formation of our infrastructure».



Russia brought its developments in the sphere of composite materials to HANNOVER MESSE. The Union of Composite Manufacturers in cooperation with the Ministry of Industry and Trade of Russia organized the collective booth of the enterprises of the composite industry in the Russian Federation

Such companies as LLC "MC "RUSKOMPOZIT", LLC "SPE "ApATECH", OJSC "NIIGrafit", OJSC "Sredne-Nevskej Shiryard", OJSC "Novgorod Glass Fiber Plant", CJSC "Electrocomposite", LLC "SPC "EVIKOM" and CJSC "HC "Kompozit" presented their products on the collective booth. The Minister of Industry and Trade Denis Manturov visited the booth personally and got acquainted with the newest domestic developments in the sphere of composite materials and technologies of their production. The presented products for transport infrastructure, construction, railway transport, shipbuilding, energy and medicine attracted a huge interest of the head of the Ministry and the activity of the enterprises manufacturing them received the deserved approval and support.

The questions of the Russian – German cooperation in the sphere of development, production and application of composite materials, transfer of the advanced technologies were discussed not only on the booth but also in the frames of the business program of the exhibition – on the special so named round table conducted on 8<sup>th</sup> of April in the Congress – Hall of the exhibition center Hannover, the

speaker of which was the Deputy of the Ministry of Industry and Trade of the Russian Federation Gleb Nikitin.



Opening the work of the round table Gleb Nikitin told: "Obviously the development of the material science will be one of the significant components of the next technological way which will create the base for the next development cycle of the world economy. The advantages of the composite materials have been already realized and clear in the whole world. The fact that this type of the materials is being designed for every real construction and task gives the additional perspectives in coming epoch of flexible digit productions. Russia has the wide experience of development and implementation of the products from composites in the military-industrial complex and aviation and aerospace industry. The Soviet Union the legal successor of which is the Russian Federation was in the "trio" of the world leaders having the technologies and the most advanced achievements in this knowledge base (USA, USSR and Japan). We had and at present have the significant competence in such sectors of the economy. The materials, products and technologies of their production for such industry sectors (because of strictness of the requirements specified to them) are the most advanced and effective but at the same time the most expensive restraining their quick transfer to the civil sector of the industry which provides the growth of GDP. Today we have a big job for scaling of the experience of composite materials application in the defense industry and technologies transfer into the mass civil sector».

The Deputy of the Minister told of the support programs of the industry worked out in the RF at present moment.

The representatives of the enterprises of composite industry of Russia and Germany listened to the reports of the Executive Director of the Association of Legal Entities the «Union of Composite Manufactures» Sergey Vetohin; the laboratory head of FSUR «VIAM» Alexander Raskutin, the Chairman of the Board of CJSC HC «Kompozit» Vladimir Hlebnikov, the General Director of LLC SPE «ApATech» Andrey Ushakov, the First Deputy of the General Director of OJSC «RT-Chemcomposite» Kirill Shubskij, the professor of the Institut für Textilechnik (ITA) of RWTH Aachen University Mr. Till Kuadlig, the professor, the holder of the chair and Dean of Faculty of the Mechanic Engineering of Technical University of Chemnitz (Technische Universität Chemnitz) Mr. Lotar Kroll, the Head of the Company «Trützschler Nonwovens & ManMade Fibers GmbH» Mr. Diter Ctenker.



The reporters shared their experience in realization of joint projects, presented their proposals in the sphere of cooperation and knowledge exchange as well as told about their work directed to the development of the production and application of composite materials in different industry sectors of both countries.

The exhibition continued five days and the composite topic was raised many times on the events of the business program of HANNOVER MESSE 2013.

On behalf of the organizers of the collective booth we want to thank the industry companies answering the invitation to participate in the collective booth as well as all visitors showing interest and the round table.

The next exhibition HANNOVER MESSE will be conducted on April 07-11, 2014.

## The exhibition of the domestic manufacturers in the State Duma



The Ministry of Industry and Trade of the Russian Federation conducted the exhibition of the products of the leading domestic companies of different industry sectors from 22 to 26 of April, 2013 in the building of the State Duma. There were presented the best products and innovative developments of the Russian industry that brightly demonstrated the favorable perspectives of the realization of the strategy of import substitution at the expense of competitive domestic products and technologies.

By the tradition the models illustrating the modern application of composite materials were presented among the exponents. The Union of Composite Manufacturers presented the developments of the companies of the industry (OJSC «Science and production corporation «Uralvagonzavod», LLC «MC RUSCOMPOSITE», LLC «BioPlast», OJSC «Tverstekloplastik») for railway transport and transport infrastructure. There were also presented the construction materials on the biocomposites and modern domestic models of the airplanes and helicopters, the share of the application of the composite materials in which has significantly grown last time.

During the event the Minister of Industry and Trade Denis Manturov personally familiarized the deputies with the exposition of the domestic industrial products.

## 2. INDUSTRY NEWS

### Dow Chemical and CJSC "Holding Company "Kompozit" discussed the cooperation questions

At the end of April the representatives of the companies discussed the questions of the application of composite materials in the construction.



On April 29, 2013 the meeting of the delegation of the companies Dow Chemical and CJSC "Holding Company "Kompozit" was conducted in the Ministry of construction, architecture and housing and public utilities. The participants of the meeting discussed the questions of cooperation and application of composite materials in the sphere of civil construction and on the objects of infrastructure as well as the questions of realization of pilot projects on the territory of Tatarstan for application of carbon fibers in the construction, repair and reconstruction of the objects of civil infrastructure (the buildings of the central heating points, bridges and overpasses, pedestrian bridges, historical buildings).

The delegation representatives made the presentation of directions of their activities during which there was also noted that they would also like to participate in realization of the state programs in the construction sector on the territory of the Republic.

[www.tatcenter.ru](http://www.tatcenter.ru)

### The production of glass reinforcement profile for windows and doors has been started in Russia

One of two production lines (pultrusion line for the production of profile systems for window structures) installed on the factory of the com-

pany LLC "Stekloplastik" in Podmoskovje has been launched.

LLC "Stekloplastik" solved the task of the production of glass reinforced window profile without the partners' participation, completely independently.



The company not just launched the industrial production of the profile from glass fiber but also developed and patented the construction of modern three-chambered profile that will allow increasing the heat and technical characteristics of the window. But the most important is in the other. Exactly this became the "pass" to techno park "Skolkovo" for LLC "Stekloplastik". The employees of the company developed the unique recipe of the resin used at the production of glass reinforced composite. Created theoretical model means the addition of ultradispersing flaked calcium carbonate to the resin. The expected results of the experiments are the strengthening of the properties of glass composite such as strength, heat conductivity and fire retardance.



Glass reinforcement profile for window constructions is produced by pultrusion method, the meaning of which is included in pulling the material through the die heated up to 150 degrees. The glass fiber materials are used at the entry: glass mat (glass fabric) for making the profile surface smooth, glass roving (threads) and textoroving (on the picture –

more "fluffy" glass threads) for complex sections of the profile. The glass reinforcement materials are impregnated with the resin of quite complex composition at the entry to the die. The die has three heating zones, in which there is a separate reagent – the composite is being stabilized and then crystallized. All source materials for the production of glass composites are produced on the territory of Russia that simplifies the quality control and logistics.

[www.coralwin.ru](http://www.coralwin.ru)

### The perspectives of the application of composite materials were discussed on the interregional conference in Smolensk

The interregional conference "Modern condition, perspectives of the production and application of composite materials in the region" was conducted in Smolensk filial of Moscow State Transport University.



The representatives of the federal structures, industry departments, a number of enterprises and business communities discussed the tendencies of the market of composite materials, perspectives of the creation of profile resource regional center and other questions.

The exhibition exposition of the manufacturers of the products from composite materials and plastics working on the territory of Smolensk region – OJSC "Avangard", LLC "Intek-S", CJSC "SP "Kompital" was organized in the hall of the university.

Opening the conference the Head of the Department of Smolensk region for Industry, Transport and Road Facilities Vladimir Shukalov noticed that the regions need to work out the real implementation programs of the composite materials and constructions in the

sphere of transport, housing and public utilities, construction on the present-day development of the economy.

By the tradition in our country the composite materials found their application in the sphere of the military-industrial complex, outer space exploration first of all. However the application of composite materials in the civil production is also quite perspective. Organization of the current conference is the obvious confirmation of it.

The "round tables" were organized in the frames of the conference: «Implementation of the products from composite materials into house building and community facilities of Smolensk region» and «Implementation of the structures and products from composite materials into the road construction of Smolensk oblast».



«We were actively involved in this work, – noted the Head of the Profile Department Vladimir Shukalov in the conversation with the journalists. – The corresponding interdepartmental working group has been created on the oblast level. Our department is the coordinator.

Nowadays there are the enterprises in Smolensk oblast having serious know-hows in the sphere of practical application of composite materials.

<http://admin-smolensk.ru>

### 3. ADVERTISEMENT

#### MAKS – 2013



In the context of the XI International aviation and aerospace saloon MAKS – 2013 the Union of Composite Manufacturers together with the Union of aviation manufacturers will conduct **Science and practical conference «Composite materials in civil and military aircraft production»** on August 30, 2013.



One of the main obstacles impeding the wide use of composite materials in Russia is the lack of a proper dialogue between the designers, researchers, manufacturers and users of modern materials. In this conference, Russian and international leading manufacturers of composite materials for the aviation industry will present their latest achievements.

**Location:** Moscow oblast, Zhukovskij city,

#### The basic topics of the conference:

- Latest scientific achievements and their implementation in the aviation industry;
- New methods of design and manufacturing of components from composite materials for the aviation industry;
- State-of-the-art materials and equipment for the production of parts and

components from composite materials for the aviation industry;

- Design and forecasting of the features of composite materials for the aviation industry;
- Composite materials in the design, assemblies and details of aircraft: application and implementation experience

Conference visitors include representatives of Russia's and CIS' largest airplane and helicopter manufactures S.V.Ilyushin Aviation Complex, Sukhoi Civil Airplanes, Irkut Corporation, G.M. Beriyev Taganrog Aviation Research Complex, Helicopters of Russia (Vertolyoty Rossii) Rostov Production Complex; manufacturers of aircraft parts and components such as Aviastar-SP, Aerocomposite as well as manufacturers and sellers of composite materials, raw materials and semi-finished products, software developers, researchers, and journalists from dedicated media. More than 200 industry experts visited the conference organized during the MAKS-2011 Salon.

**We are pleased to invite you to participate with a presentation of your company's / institute's latest achievements in the area of manufacturing and application of composite materials for the aviation industry.**

The conference is an excellent opportunity to tell about your achievements and developments to the entire Russian aviation industry, find new partners and establish useful contacts.

Presentations telling about scientific research or practical developments are free of charge. Presentations containing advertising or marketing information about the company's products and services are made on a paid basis EUR 500 per presentation.

The length of a presentation is 15 minutes; presentations in English will be interpreted into Russian.

If you would like to make a presentation, you are kindly asked to send an application together with the presentation / summary of your speech to the Organizing Committee before 10 July 2013 to the address: [manager@uncm.ru](mailto:manager@uncm.ru).

The Committee will include speeches in the programme based on the subject and summary / full presentation. Summaries and presentations accepted by the Organizing

Committee will be published in the conference digest, which will be distributed free of charge among conference visitors and industry experts.

Participation as the listener is **FREE OF CHARGE** (*the listeners will be the entrance ticket for MAKS personally*).

**The organization committee of the event:**

The Union of Composites Manufacturers

Tel./fax +7-495-984-76-74

e-mail: [manager@uncm.ru](mailto:manager@uncm.ru)

[info@uncm.ru](mailto:info@uncm.ru)

[www.uncm.ru](http://www.uncm.ru)

Editor – Lukicheva Natalia  
[manager@uncm.ru](mailto:manager@uncm.ru)  
117292, Moscow, PO Box 49  
Phone/fax: +7 (495) 984-76-74  
[www.uncm.ru](http://www.uncm.ru)