

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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WITH THE ASSISTANCE
Of the Publishing House
«Composite World»

№ 10 (57) 2011
Dated November 8, 2011

UNION OF COMPOSITES
MANUFACTURERS

1. THE UNION'S ACTIVITY

The industrial conference

For identification and discussion of the problems of composite industry development in the Russian Federation and organization of industry enterprises interaction with the Strategic Initiative Agency

By its definition the composites (composite materials) are the advanced innovative materials (as the materials with the tailor-made properties) that's why task-oriented and conscious development of their production and application will allow creating one of the key links of new innovation economy of RF.

However despite the obvious advantages, effectiveness and reliability the progressive structures and technologies with the application of composite materials still have not found full-scale application in different industry sectors.

This situation coincides with the presence of a number of key problems. The main problems are: – absence of valuable normative and technical base, regulating the requirements to the composite materials, including the issues of products engineering and conformance evaluation, – absence of the demand from the state for the innovative products, – lack of adequate financial resources.

It is uncontroversial that there is the necessity in the innovative development in Russia but no other alternative is present in our country. That's why the state should formulate a new environment, new climate "friendly for innovations", the results of which should be:

- Obstacles elimination restraining the widening of scope of innovative activity of the enterprises and distribution of the advanced technologies in the economy;
- Strengthening of the impetus on the companies' level to the constant innovative activity, to the usage and development of new technologies for business competitiveness provision;
- Creation of favorable conditions for formation of new high technological companies and development of new products (services) market.
- One of the tools of such climate creation including for composite industry can and

should be the Strategic Initiative Agency (SIA) the activity of which is directed to the support and development of the projects of successful enterprises of middle and small business.

On October 25, 2011 the industrial conference was conducted on the territory of Delovaya Russia during which there was the discussion of identification and discussion of the problems of composite industry development and organization of industry enterprises interaction with the Strategic Initiative Agency organized by the Industrial department of FIRC Delovaya Russia for composite materials production – the Union of Composites Manufacturers.



The general director of SIA – Nikitin Andrey and the heads of the leading enterprises of composite industry CJSC "Holding Company "Composite", LLC "Management company "RUSCOMPOSITE", OJSC "Avangard", LLC "Bijskij Factory of FRP", LLC "SCB "Misl", OJSC "OCV Steklovolokno", LLC "BioPlast" and other participated this meeting.



During the meeting the general director of SIA, Andrey Nikitin showed the presentation of the Strategic Initiative Agency and there was also listened the opinion of the heads of the leading enterprises of the composite industry indicating their problems of the realization of innovative projects.

It was pointed out that the composite materials in Russia are the modern innovation materials, that allow increasing the durability of the products and saving their high application performances during the whole life cycle as well provide their safety and reliability.



However the full-scale implementation of advanced structures and technologies with the application of composite materials is prevented by a number of obstacles. The main problems are the absence of valuable normative and technical base, regulating the requirements to the composite materials, including the issues of products engineering and conformance evaluation as well as lack of financing and insignificant interest of the organizations – consumers in the products from advanced materials.



The agenda included the discussion of the main administrative, technical and economic obstacles, with which the industry enterprises face during production processes and promotion of new products and parts to the market and the ways of their overcoming, as well as the questions of support of the business – projects of composite industry the unique and socially significant.

The heads of the companies asked the questions interesting for them regarding SIA activity concerning support of the innovative productions and projects.

THE GENERAL MEETING OF THE MEMBERS OF THE UNION OF COMPOSITE MANUFACTURERS

October 26, 2011 the heads of the enterprises – members of the Union of Composite Manufacturers gathered on the General meeting.



The offers of the Union's members concerning the current activity and work plans for 2012 were listened on the meeting. The heads of the enterprises discussed the creation of science and educational center for composite materials in the Russian Federation, as well as a number of the biggest industry enterprises were **accepted to the Union's compositions:**

VitruLAN Textilglas GmbH (Germany, Markstottgarst) – as the principal member.

About the company: The German company «VITRULAN Textilglas GmbH» is the leading European manufacturer of decorative glass wallpapers, reinforcement glass meshes and glass fiber mat as well as the other technical products from fiberglass with the application of the advanced industrial standards.

A high quality of the products, innovation approach to the production, wide range of the services and reliability make the company «VITRULAN Textilglas GmbH» known to the whole world.

The company «VITRULAN Textilglas GmbH» has the daughter-company in LLC «VITRULAN



Textileglass» (Moscow) that has been working on the Russian market for 5 years already.

Holding Company «Composite» (Russian Federation, Moscow) – as the principal member.

КОМПОЗИТ
КОМПОЗИТОВАЯ КОМПАНИЯ

About the company:
The Holding Company «Composite» was creat-

ed in 2009 with the purpose to organize the market of carbon composite materials in Russia. The holding consists of the enterprises for production of high strength and high modulus carbon fibers and fabrics on their base as well as high quality prepregs that are used in aviation, wind energy, auto, shipbuilding and other.

The Holding Company Composite is the partner in joint productions with state corporations Rosatom, Rostechologies, RUSNANO.

On December 4, 2009 there was signed the agreement of disposal to the Holding Company «Composite» the management of business assets of the State Corporation «Rosatom» for carbon fiber production – OJSC «SPC «Himpromengineering» (Moscow) and its daughter – companies – LLC «SNV» (Saratov), LLC «Argon» (Balakovo, Saratovskaya oblast), LLC «Factory of carbon and composite materials» (Chelyabinsk). As the result of signed agreement the Holding Company «Composite» organized the complete cycle of production of composite materials on carbon fiber base, creating the raw materials foundation for CJSC «Prepreg-SKM». In relation of these assets the main task of the Holding Company «Composite» is the increasing of their cost by way of reconstruction and modernization of technological base, decreasing of the expenses, widening of the product line as well as increasing of sales volumes.

Evonik Industries AG (Germany, Essen) – as the principal member.

 **EVONIK**
INDUSTRIES

About the company:
Evonik Industries AG is the enterprise with more

than 170 years history. The head office of the company bearing the name Degussa GmbH up to September 12, 2007 is located Essen (Germany). Evonik Industries AG produces the chemical products for different industry sectors. More than 45 000 employees work in the offices and on the production facilities located in Africa, Asia, Europe, North and South America. More than 2 300 of them are employed in R&D. Evonik Industries AG has about 350 partnership agreements with the universities and institutes all over the world as well as more than 20 000 patents

and patent applications and about 7 500 registered trade names.

LLC Special Construction Bureau «Misl» (Russian Federation, Ekaterinburg, Sverdlovskaya oblast) – as the associated member with the right of consultative capacity and with the purpose to participate in the industry project: «Development of the drafts of the national standards for composite materials and products for mechanic engineering».

About the company: LLC SCB «Misl» is dynamically developing company organized in 1991 by young scientists and specialists of Uralsk Mining Institute. Today the company has dozen of author's certificates and patents, articles, publications in the regional and republic editions, participation in the seminars (and their realization), development of a number of big projects and their successful realization. The company has the production facility, necessary technological equipment, qualified personnel.



At present SCB offers:

- execution of works for anticorrosion (chemical) protection of technological equipment in different sectors of production and business activities;
- manufacturing of the products from composite materials;
- designing and production of tot-lot areas.

LLC «Publishing House the «World of Composites» (Russian Federation, Saint-Petersburg) – as the trendy members in a consultative capacity.



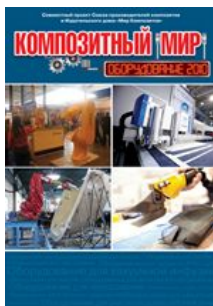
About the company: LLC «Publishing House the «World of Composites» was founded in February 2005.

The first and main project of the Publishing House is the science and popular magazine «Composite World» the main idea of which is popularization of composite materials in the Russian market with the purpose of their wider application. In 2006 the English and Russian catalogue – guide «Composite EXPO» was started to be published that found a new form in 2011, it was filled in by a new content and switched to the next and modest project - «Composite World TOP NEWS» – the edition that annually generalizes all news, advance developments and experience of the companies of Russia and CIS and informs the companies of the world composite

industry about this actual information. In 2009 the Publishing House started the realization of the electronic newspaper "KOMPOMIR NEWS", and in 2010 joining it with Industry Newsletter of the Union of Composite Manufacturers published the printed version of the Newsletter "Composite Materials". From 2009 the Publishing House sales the specialized literature. From 2010 in cooperation with the Union of Composite Manufacturers the Publishing House started the publication of special additions of the "Composite World" magazine: "EQUIPMENT", «AVIATION and SPACE». «THE BEST APPLICATIONS ».

The joint project of the Publishing House the «World of Composites» and the Union of Composite Manufacturers

In November 2011 it is planned the publication of specialized enclosure to the "Composite World" magazine that will be fully dedicated to the equipment in composite industry.



The pages of this edition will contain the information about:

- Equipment for reinforcement materials production
- Technological equipment for composites manufacturing
- Auxiliary equipment and tools
- Robotized complexes
- Equipment for control and test operations of products from composites.

Тираж: 3000 экз.

Circulation: 3000 copies.

The edition will be distributed by:

- free distribution to all subscribers of the "Composite World" magazine together with December issue;
- addition to the materials to the conferences organized by the Union of Composite Manufacturers;
- free of charge on the booths of the magazine and the Union on all industry events.

The materials acceptance is up to November 01, 2011.

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2. NEWS OF THE TECHNICAL REGULATION

The Decision of the Commission of the Customs Union as of 16.08.2011 N 768

"Of acceptance of the technical regulation of the customs Union "Of low-voltage installation safety"

The Commission of the Customs Union accepted and Technical regulation "Of low-voltage installation safety" (TR CU 004/2011) that comes into force from July 01, 2012

As well as there were approved:

- The list of standards in the application results of which the requirements of the indicated Technical regulation are provided on a voluntary basis;
- The list of standards containing the rules and methods of researches (tests) and measuring including the rules of sample selection necessary for application and execution of the requirements of the Technical regulation and provision of the conformity (conformance) assessment of the products.

It has been established that up to August 15, 2014 it is assumed the production and emission of the products in correspondence with the obligatory requirements established by the legislation of the states – members of the Customs Union before or normative legislative acts of the Customs Union with the presence of the documents of conformity (conformance) assessment of the products to the indicated obligatory requirements issued or accepted up to the day of effectivity

of the Technical regulation.

Indicated products are marked by the national accordance mark (distribution mark on the market) in accordance with the legislation of the states – members of the Customs Union or with the Decision of the Commission of the Customs Union as of September 20, 2010 N 386. The labeling of such products by the unique distribution mark is not allowable on the markets of the states – members of the Customs Union.

From the effective day of the Technical regulation the issue or acceptance of the documents of conformity (conformance) assessment to the obligatory requirements established by the legislation of the states – members of the Customs Union before or normative legislative acts of the Customs union are not allowable.

The Decision of the Customs union as of 23.09.2011 N 785

"Of introduction of alterations and additions into the Avowal Order of customs value of the goods"

The changes concerning the order of the filling in the Declaration of Customs Value – 2 will come into force from January 01, 2012

The alterations and additions have been introduced in some provisions of the Avowal Order of the customs value of the goods approved by the decision of the Commission of the Customs Union as of September 20, 2010 N 376; among this the Order has been added by a new section III "The Rules of filling in the Declaration of Customs value -2".

In particular it has been established that the Declaration of Customs Value is filled in by the methods of determination of the customs value provided in the articles of the Agreement. The Declaration of Customs Value – 2 consists of two main sheets: the first sheet containing the information about all products declared in the Declaration for the goods and the second sheet in which the data used at the determination of customs value of the goods and calculation of the amount of the customs value.

3. INDUSTRY NEWS

«Rusatom» will build the factory of carbon fiber

The General director of SEZ «Alabuga», Timur Shagivaleev told about the project of a new factory on the SEZ supervisory



committee meeting in the Cabinet Council of Tatarstan. The factory will be built by CJSC «Holding Company «Composite» (75% — in IFC «Alema», 25% — in CJSC «Unihimtech-composite»). LLC «Alabuga-fiber», that has been established by «Composite» for the project will get the status of resident of «Alabuga» in nearest time, Shagivaleev informed. «Rusatom» finances the project 2.5 billion Rubles.

The construction of the factory will be started at the end of 2011, it will begin production at estimated capacity in autumn 2012, Shagivaleev told to «Vedomosti». He does not exclude that in 2016 the capacities can be increased up to 3000 tons. According to his words the project will create 250 work places.

A half of the main raw material — polyacrylic fiber (PAN-fiber) — will be purchased in Russian in the company «Composite-fiber», the second half – abroad, Shagivaleev tells. He has not given the names of the foreign suppliers.

«It will be the most highly technological project of SEZ «Alabuga». *There are no analogues in Russia. The production of carbon fiber works in Saratovskaya oblast, but it was started in the 80th last century and the equipment installed is physically and ethically went out of date*», — Shagivaleev tells. According to his words the carbon fiber is not widely used in Russia yet: 4 kg are accounted for a person per year, in Europe — 29 kg, in Japan — 180 kg.

The leading expert of MC «Finam management» Dmitry Baranov estimates the pay-back time as 4-6 years from the moment of complete production capacities.

RUSNANO and the company «Galen» signed the investment agreement

The total budget of the project will exceed 500 million Rubles 200 million of which will be financed by RUSNANO. It is expected that production volume of the project company will constitute 2500 – 3000 tons in 2016: pit barring for mining industry; armature, flexible couplings and dowels for construction needs; composite pump rods for crude production; lamp posts and support for power transmission lines.

Basalt composite armature does not rank below steel one by strength and is vastly superior to it by durability. At that composite material on the basalt fiber base is not exposed to corrosion that is extremely important for the structures operated in the conditions of increased humidity or salt presence (in particular for bridge piers). In average this material 70% lighter than steel that simplifies the transportation and in some cases, for example for pump rods used at crude production, allows increasing the operation life of the equipment due to load decreasing to it. One more advantage of the composites is quite good absorbing and at the same time breakaway posts of street lighting.

The armature produced by the company «Galen» consists of basalt fiber and epoxy system having such advantages as halogen resistance, resistance to acids and alkali. Such disadvantage as relatively low self-ignition temperature of the composite has been eliminated in this case with the help of addition of small amount (several percent of mass volume) of aluminum silicate montmorillonite nanoparticles to the epoxy resin composing the base of different clays that also improved the bending strength of produced composite.

www.polymers-money.com

The specialists for composite industry will be trained in Tatarstan

The General Director of the Holding Company «Composite» Leonid Melamed and Rector of Kazanskij National Research Technological University German Djakonov signed the cooperation agreement on the IV Inter-

national Forum for nanotechnologies Rusnanotech 2011



The purpose of the agreement is the training of the specialists, graduate students and students in the sphere of composite materials of different purposes. Up to the end of 2012 the Holding Company «Composite» plans to create a new ground for carbon fiber production of the territory of Tatarstan in the specific economic zone «Alabuga». The personnel for new innovative production will be trained on the base of Kazanskij National Research technological University.

The General Director of the Holding Company «Composite» Leonid Melamed commented the content of the agreement in the following words: *«There is a lack of specialists of engineering profession in Russia and you will not find the specialists in the sphere of composite materials in a month of Sundays all over the world. Not only Russian company but also the West companies face the difficulties in search of specialists from composite world. For example the world auto giant BMW cannot close more than hundred vacancies in the sphere of composite materials. The only solution is to train specialists for new industry with joint efforts of educational and business institutions. And our agreement with Kazanskij National Research Technological University is called on assistance to it».*

The Rector of Kazanskij National Research technological University German Djakonov is sure that this agreement is directed to training of specialists of future: *«With the Holding «Composite» we will train the specialists having necessary competence to develop a new industry in Russia. Thereby we suppose to contribute to the modern education, to provide our student the possibility for realization of their creative capacities in the sphere of*

the polymer composite on carbon fiber base absolutely new for them».

Press-service of HC «Composite»

4. ADVERTISEMENT

UNCM *Union of composite manufacturers*

November 24, 2011 in Moscow the Union of Composites Manufacturers will conduct

the 5th International science and practical conference

«Composite materials: production, application, market tendencies»

According to the tradition the event will be dedicated to the actual questions of composite market development in Russia and CIS, such as:

- News of the market of raw material and auxiliary materials,
- Innovations, modern technologies and equipment,
- IT-technologies,
- Mold construction and tooling,
- Technical regulation.

There will be a specific subject of the conference – the question of quality and durability of the products from composite materials, specificity of their application, normative documents as well as processing and recycling of composite products.

The event gathers more than 120 representatives of the leading industry companies annually.

We invite the companies for participation in conference work.

Please address to the office of the Union of Composite Manufacturers regarding participation questions:

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Reporters requests are accepted up to October 20, 2011. Listeners requests are accepted up to November 20, 2011

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