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# Dow Chemical, DowAksa, RUSNANO and HCC Sign Memorandum of Intent to Develop and Produce Carbon Fiber Intermediates and Solutions in Russia

Davos, Switzerland — January 25, 2013 — The Dow Chemical Company, DowAksa Advanced Composites Holdings B.V., RUSNANO, and Holding Company Composite (HCC) signed today a memorandum of intent (MOI) to develop a comprehensive strategy to launch production of carbon fiber intermediates, composite materials, and solutions in Russia. The strategy presupposes potential investments in Prepreg-ACM and Nanotechnology Center of Composite, two Russian companies with co-investment from RUSNANO. The parties have agreed to explore opportunities in the areas of aerospace, infrastructure, energy, oil & gas, and transportation, and to explore supplying both the Russian domestic and global markets.

The document signed today is another important milestone in the parties' cooperation, emphasizing the intentions earlier outlined in the 2011 MOU between Dow and RUSNANO on potential joint projects in the areas of energy efficiency, infrastructure, lightweight materials, and life sciences, as well as plans by DowAksa and HCC to consider carbon fiber manufacturing in Russia.

The 2013 MOI was signed at the World Economic Forum in Davos, Switzerland, by **Andrew N. Liveris**, Dow's Chairman and Chief Executive Officer; **Anatoly Chubais**, RUSNANO CEO and Chairman of Executive Board; **Leonid Melamed**, CEO of HCC; **Heinz Haller**, Dow's Executive Vice President, Chief Commercial Officer, President Dow Europe, Middle East and Africa and Chairman of DowAksa Board of Directors; and **Mehmet Ali Berkman**, Chairman of Aksa and Deputy Chairman of DowAksa Board of Directors. At the meeting preceding the signing

ceremony, Dow and RUSNANO discussed potential cooperation between Dow and RM Nanotech, a RUSNANO portfolio company.

"The signing of the MOI on potential manufacturing of carbon fiber intermediates in Russia marks a significant step forward in Dow's innovation and growth strategy, and strengthens our commitment to addressing the needs of growing emerging geographies such as Russia," stated **Andrew N. Liveris**, Dow's Chairman and Chief Executive Officer. "Collaborating with the strong local players and leveraging DowAksa capabilities, we will contribute Dow's expertise in composites technology, formulation, and technical service as well as global market knowledge and channels."

"DowAksa which has entered into carbon fiber business in 2009 by developing its own technology is a potential leader in the production of carbon fiber and carbon fiber intermediates, and our engagement with the Russian domestic companies will bring new investments to the Russian market and may enable the local production of high quality composite materials which are extremely valuable for downstream high-tech manufacturing. I believe that this collaboration will place DowAksa and Turkey in Advanced Materials league in which only few countries currently exist," said **Mehmet Ali Berkman**, Chairman of Aksa and Deputy Chairman of DowAksa Board of Directors.

"With this agreement, we open a pathway to our portfolio companies for business and technological partnership with Dow Chemical—the acknowledged leader in innovations in chemical industry," said **Anatoly Chubais**, RUSNANO CEO and Chairman of Executive Board. "The agreement will enable our companies to spurt ahead in the rapidly evolving realm of carbon composite materials and to find new solutions to increasingly complex engineering challenges."

"During 2013 I believe we'll be able to reach strategic agreement on DowAksa's investment in our project and set up the partnership that will promote our products in Russia, the CIS, and international markets," said **Leonid Melamed**, CEO of HCC.

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### **About Dow**

Dow (NYSE: DOW) combines the power of science and technology to passionately innovate what is essential to human progress. The Company connects chemistry and innovation with the principles of sustainability to help address many of the world's most challenging problems. Dow's diversified industry-leading portfolio of specialty chemical, advanced materials, agrosciences and plastics businesses delivers a broad range of technology-based products and solutions to customers in approximately 160 countries and in high growth sectors. In 2011, Dow had annual sales of \$60 billion and employed approximately 52,000 people worldwide. The Company's more than 5,000 products are manufactured at 197 sites in 36 countries across the globe. References to "Dow" or the "Company" mean The Dow Chemical Company and its consolidated subsidiaries unless otherwise expressly noted. More information about Dow can be found at www.dow.com.

### About DowAksa

Aksa Akrilik Kimya Sanayii A.Ş. and The Dow Chemical Company affiliate Dow Europe Holdings B.V. signed a preliminary agreement in 2011 for the manufacture and worldwide marketing of carbon fiber and carbon fiber based products. Following the preliminary agreement Dow Europe Holdings B.V., which is a 100 per cent The Dow Chemical Company (NYSE: Dow) owned company and the world's leading company in acrylic fiber industry Aksa Akrilik Kimya Sanayii A.Ş. (ISE: AKSA) signed the final agreement for a joint venture of DowAksa Advanced Composites Holdings BV. Aksa and Dow have 50 per cent ownership in DowAksa Advanced Composites Holdings BV.

DowAksa offers a wide range of products to the rapidly growing carbon fiber composite industry and markets its products globally by developing its product range through technical service support. The new joint venture develops solutions aiming to reduce the total cost. The company will have a much wider area of application in various industrial markets and will achieve savings in total costs across the entire product chain. DowAksa particularly emphasizes integrated carbon fiber composite solutions in the globally developing energy, transport and infrastructure areas. More information about DowAksa can be found at www.dowaksa.com.

### **About RUSNANO**

RUSNANO was founded in March 2011 as an open joint stock company through reorganization of state corporation Russian Corporation of Nanotechnologies. RUSNANO's mission is to develop the Russian nanotechnology industry through co-investment in nanotechnology projects with substantial economic potential or social benefit. The Government of the Russian Federation owns 100 percent of the shares in RUSNANO. Anatoly Chubais is CEO and chairman of the Executive Board of RUSNANO. Work to establish nanotechnology infrastructure and training for nanotechnology specialists, formerly conducted by the Russian Corporation of Nanotechnologies, has been entrusted to the Fund for

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Infrastructure and Educational Programs, a non-commercial fund also established through reorganization of the Russian Corporation of Nanotechnologies. For more information, visit <a href="http://en.rusnano.com">http://en.rusnano.com</a>.

## **About Holding Company Composite**

Holding Company Composite was founded in 2009. Our key objective is to develop a market for composites in Russia. The Holding unites companies producing high-modulus and high-strength carbon fiber and carbon fiber-based fabrics, as well as manufacturing high-quality prepregs from domestic raw materials. Our products are used in aerospace, wind energy, construction, transportation, shipbuilding, power industry, and medicine. We are setting up a highly efficient environmentally friendly production based on innovative continuous and discontinuous fibre production technologies. We are creating a market for the new generation composite materials in Russia. Our mission is to achieve leadership in production, sales and engineering of the new generation of composites on the Russian market. More information can be found at http://www.hccomposite.com/en/.

<u>Prepreg-ACM</u> (<a href="http://www.hccomposite.com/en/company/structure/150/">http://www.hccomposite.com/en/company/structure/150/</a>) and <a href="https://www.hccomposite.com/en/company/structure/158/">Nanotechnology Center</a> of <a href="https://www.hccomposite.com/en/company/structure/158/">Composite</a> (<a href="https://www.hccomposite.com/en/company/structure/158/">https://www.hccomposite.com/en/company/structure/158/</a>) are HCC and RUSNANO portfolio companies managed by HCC.

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