



**PoCTEX**

## **Rostec presents chameleon helmet to equip the "soldier of the future" at Army 2018**

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*Press release*

**Rostec has presented a unique camouflage coating for military vehicles and soldiers' equipment able to mimic the color of the environment at the Army 2018 forum. The company illustrated the possibilities of the material with a soldier's helmet made for the advanced, third generation equipment Ratnik. The chameleon cover is on display at the corporation's permanent exhibition in Patriot Park.**

The specialized electrically-operated material covering the helmet prototype is able to change color depending on the camouflaged surface and environment. The material can display dynamic changes of color intensity and simulate complex images, for example, the motion of leaves in the wind. Within Rostec, the development is performed by Ruselectronics and TSNITOCHMASH.

"Existing types of camouflage do not change their masking properties depending on changes in the background. For example, soldiers will not be seen in a forest against greenery, but they will be visible against sand or snow. An innovative coating created by Ruselectronics provides unique opportunities for masking. We are demonstrating how it works using one element of equipment, i.e., a helmet. However, its application is much broader. It can be used in clothing, weapons, and military equipment," said Industrial Director of the Armament Cluster of Rostec **Sergey Abramov**.

The coating is applied to the base, like ordinary paint, and does not require great accuracy in terms of thickness and uniformity. In particular, this means that repairs can be carried out in the field. The power consumption in continuous adaptation mode is no greater than that of an energy saving lamp. The mass of the coating is just a few hundred grams per square meter.

In the future, the technology could be applied in civilian sectors as well. For example, in the textile industry, it can be used to create clothing that changes color and pattern depending on a person's mood.

**Ruselectronics** was created in 1997, and in 2009 became part of State Corporation Rostec. In 2017, United Instrument Manufacturing Corporation was integrated in the holding company. Ruselectronics is a key actor of the radio-electronics market. The holding company is accountable for more than 50% of electronic components' output in Russia, 8% of total output of the radio-electronic products, and provides more than 10% of jobs in the industry. The holding company is an umbrella for more than 130 enterprise and scientific organisations specialising in the development and manufacturing of radio-electronic components and technologies, communication devices and systems, automated control systems, robotic systems, SHF electronics, computing equipment and telecommunications equipment. Total workforce is above 80 thousand employees. The overall annual revenue of the holding company affiliates is above 180 billion rubles. The holding company's



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products are supplied to more than 30 countries of the world in Europe, Southeast Asia, Middle East, Africa and Latin America.

**TSNIITOCHMASH** forms part of Rostec State Corporation as a directly managed organization. It develops and produces armaments and military equipment for various types of military forces. Under the supervision of TSNIITOCHMASH, over 150 units and complexes of small arms, artillery, anti-tank weapons, military equipment and various types of cartridges have been developed, and their serial production started. They have been handed over to ground troops, paratroopers, air force, the navy and special units of law enforcement agencies.

**Rostec Corporation** is a Russian corporation that was established in 2007 to facilitate the development, production and export of high-tech industrial products designed for civilian and military applications. The Corporation comprises over 700 organizations that are currently part of eleven holding companies operating in the military-industrial complex and four holding companies working in civilian industry, as well as over 80 directly managed organizations. Rostec's portfolio includes well-known brands such as AVTOVAZ, KAMAZ, Concern Kalashnikov, Russian Helicopters, UralVagonZavod, etc. Rostec companies are located in 60 constituent entities of the Russian Federation and supply products to the markets of more than 100 countries. In 2017 the consolidated revenue of Rostec reached 1 trillion 589 billion rubles, while the consolidated net income and EBITDA amounted to 121 and 305 billion rubles respectively. In 2017 the average salary in the Corporation was 46 thousand rubles. According to Rostec's strategy, the main objective of the Corporation is to ensure that Russia has a technological advantage in highly competitive global markets. Rostec's key objectives include the introduction of a new techno-economic paradigm and digitalization of Russian economy.

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