

## **EXPERT OPINION № 17-20448**

**The Valuation Object: use right for a know-how:**

**Solid Phase Grafting Technology;**

**Technology of Melt-Processible Ultra High  
Molecular Weight PE production;**

**Surface-modified polymer particles (hot ozonolysis  
(plasma) modification);**

**Self-Reinforced Polymers Flow – Induced  
Crystallization;**

**Polymer Alloys (compatibilised);**

**Thermoreversible Cross-linking.**

**The Client: Victor Bolduev, Individual Entrepreneur**

**The Expert: Swiss Appraisal Russia LLC**

**The Valuation Date: 01.03.2017**

**The Expert Opinion Date: 14.03.2017**

**Russia, Moscow**

## EXECUTIVE SUMMARY

In accordance with the Consulting Service Contract No.17-20448 dated February 14, 2017, Swiss Appraisal Russia, LLC (hereinafter referred to as the Expert) determined the fair value of the Valuation Object. For the purposes of the present Expert Opinion, the Valuation Object is defined as the use right for a know-how:

- Solid Phase Grafting Technology;
- Technology of Melt-Processible Ultra High Molecular Weight PE production;
- Surface-modified polymer particles (hot ozonolysis (plasma) modification);
- Self-Reinforced Polymers Flow – Induced Crystallization;
- Polymer Alloys (compatibilised);
- Thermoreversible Cross-linking.

The Valuation Date: March 1, 2017.

The purpose of the Expert Opinion is to determine the Valuation Object's fair value. In accordance with the Consulting Service Contract, the valuation results intended use is for the purposes of disclosure of an asset at fair value for contribution to an authorized capital

The fair value was defined in accordance with the International Valuation Standards (IVS) 2017 developed by the International Valuation Standards Council (IVSC).

Having analyzed the available information, the Expert is able to conclude that, with a view of the assumptions admitted and the restrictions stated, the Valuation Object's fair value as at the Valuation Date (March 1, 2017) approximately amounts to (VAT exclusive)

**189 564 000**

**(One hundred eighty nine million five hundred sixty four thousand) USD**

or

**11 048 370 000**

**(Eleven billion forty eight million three hundred and seventy thousand) RUB**

Regards,

Managing Director

Swiss Appraisal Russia, LLC



Roman V. Chibisov

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## 1. MAIN FINDINGS AND CONCLUSIONS

### 1.1. The project scope

<b>Valuation Object</b>	<p>Objects of know - how:</p> <ol style="list-style-type: none"> <li>1. Technology for graft polymer production ((engrafted) under the method of solid cooking in the special modified vessel (Solid Phase Grafting);</li> <li>2. Technology of industrial modification (functionalization) of polymers, including ultrahigh-molecule with polyethylene (UHMPE) and fluoropolymer under the method of heat ozonolysis (Hot Ozonolysis);</li> <li>3. Technology for thermoplastic polymer alloys production (processed in hot melt) based on ultrahigh-molecule with polyethylene (Melt Processable UHMWPE) method;</li> <li>4. Technology for self-reinforcement thermoplastic polymer alloys under the method of flow induced crystallization;</li> <li>5. Technology for thermoplastic polymer alloys under the method of functionalization of polyolefins and nylon plastics (Graftamid technology);</li> <li>6. Technology for adhesive materials, heat stable polymers and other materials under the Thermo-Reversible Cross-linking method for 3D printing and modifier of asphalt.</li> </ol>
<b>Property rights recognized for determination of the value of the valuation object</b>	Not registered, it is planned to get a number of patents for the objects of know-how
<b>Expert opinion purpose</b>	Determination of value
<b>Intended use of valuation results</b>	Contribution to authorized capital
<b>Language</b>	English
<b>Currency</b>	US dollars, Russian rubles
<b>Types of value</b>	Fair value
<b>Valuation date</b>	01.03.2017
<b>Assumptions under which the Expert's opinion is based</b>	<ol style="list-style-type: none"> <li>1. Provided property is not involved in litigations, no encumbered by pledge obligations, there is no claim from other entities.</li> <li>2. Valuation is made on the assumption that the Client provides sufficient and reliable information about the Valuation Object.</li> <li>3. In the process of providing the Expert' services, there may be other assumptions and limitations which are not specified in the scope of work, on which the Expert's opinion should be based.</li> <li>4. Carrying out the calculations, the Expert will take into account that the rights to the valuation object are fully registered, and it is planned to register documents (to get patents) for know-how in the future.</li> </ol>

## 1.2. The results obtained from different valuation approaches.

In the present Expert Opinion, the Expert adopted Greenfield method within income approach. The reasons for the market and cost approaches rejection are stated in the corresponding section of this work.

**Table 1.1. The results obtained from different valuation approaches (VAT exclusive)**

Valuation Object	Market approach	Income approach	Cost approach
the Valuation Object is defined as the use right for a know-how: <ul style="list-style-type: none"> <li>• Solid Phase Grafting Technology;</li> <li>• Technology of Melt-Processible Ultra High Molecular Weight PE production;</li> <li>• Surface-modified polymer particles (hot ozonolysis (plasma) modification);</li> <li>• Self-Reinforced Polymers Flow – Induced Crystallization;</li> <li>• Polymer Alloys (compatibilised);</li> <li>• Thermoreversible Cross-linking.</li> </ul>	Justified refusal	<b>189 564 000 USD</b>	Justified refusal
		<b>11 048 370 000 RUB</b>	

Source: the Expert's calculations and inference

## 1.3. The final statement of the Valuation Object's fair value

Having analyzed the available information, the Expert is able to conclude that, with a view of the assumptions admitted and the restrictions stated, the Valuation Object's fair value as at the Valuation Date (March 01, 2017) approximately<sup>1</sup> amounts to (VAT exclusive):

**189 564 000**

**(One hundred eighty nine million five hundred sixty four thousand) USD**

or

**11 048 370 000**

**(Eleven billion forty eight million three hundred and seventy thousand) RUB**

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<sup>1</sup> Up to a thousand