

# PAINTING METAL newsletter

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## Growth Expected to Continue in Eastern Markets

Teknos' plant project in St. Petersburg is progressing on schedule. The site has been bought and construction is scheduled to begin in the late spring. In addition, the operations of the Teknos Ohtek powder coating plant in St. Petersburg will be transferred to

the new paint factory.

Growth is expected to continue in Russia and the other CIS countries, even if it is difficult to assess western Europe's growth prospects at the moment.

Teknos' decision to invest in a new paint factory forms part of its strategy of operating close to the customer.

 **Jari Schneider**  
Senior Group Vice President



# Application of Teknos Coating Materials at Gas Industry Facilities

Teknos is known for its innovative paint products, for a large number of cutting-edge research developments and for its customer orientation. Teknos' corrosion protection system for gas industry facilities meets the high requirements stipulated by global energy company GAZPROM.

The Russian gas industry now makes the greatest contribution to satisfying the country's energy needs, while also playing a significant role in helping many other countries to balance their energy requirements. Russia's Gas Transport System (GTS) is recognised everywhere as one of the world's most efficient and reliable systems of its kind.

When solving fixed assets related problems during the past several decades, a wealth of experience has been gained in applying corrosion protection at facilities. Based on analyses and general conclusions drawn from this experience, Gazprom has developed the document R GAZPROM 9.1-008-2010 "Corrosion Protection. General Requirements for Interior and Exterior Protective Coatings for Process Equipment, Aboveground Metal Structures and Building Structures."

In accordance with the stipulations of the above document, paint coatings are subject to tests for their resistance to water and organic media, aggressive chemicals, variable temperatures, UV radiation and a number

of other important sources of damage. The testing method employed involves the full simulation of the actual, aggressive factors that will impact on the anticorrosion coating during operation within the gas industry. After testing, coating adhesion, strength, integrity and appearance are assessed.

For the paint coating to successfully pass the specified tests and provide a service life of around 15 years, only high-quality chemically cured paint materials can be used.

## Two-layer paint system by Teknos

During its history of over 60 years, Teknos has become a world leader in the development of paint materials and steel and concrete surface corrosion protection systems. The company also has long experience of using various materials in the oil and gas industry.

Teknos is known for its innovative approach to paint product manufacture, for a large number of cutting-edge research developments and for its customer orientation. Teknos' paint system, that meets the high requirements stipulated by GAZPROM, con-

sists of a surface-tolerant epoxy primer, and a weather- and UV radiation-resistant polyurethane top coat.

Because it comprises only two layers, this paint system can be applied very quickly. The properties of the primer are based on micaceous iron oxide, which is a flaky inorganic pigment. Primer's sealing properties provide a long service life based on a minimum thickness across the entire paint system.

Epoxy-polyurethane EP/PUR 160/2-FeSa2½	
INERTA MASTIC MIOX	1 x 100 µm
TEKNODUR 0050	1 x 60 µm
<b>Total dry film thickness</b>	<b>160 µm</b>

This paint system has successfully passed tests, is R Gazprom 9.1-008-2010-compliant and belongs to coating Category 12 (long service life of more than 15.5 years in open industrial environments in regions with a moderate and cold climate) and Category C4 (service life of at least 5 years at moderately elevated temperatures up to +100°C).





### INERTA MASTIC MIOX epoxy primer

It is also by no means unimportant that the INERTA MASTIC MIOX epoxy primer is highly processable with regard to its application. It is possible to use airless high-pressure spraying, air-assisted spraying, or a brush or roller, for small areas. Thixotropic properties ensure easy achievement of the required thickness, without applying marks. The material is notable for its high solids content (80%), which provides for minimum solvent emissions and comfortable work. The epoxy matrix enables strong adhesion to surfaces, with various degrees of preparation. INERTA MASTIC MIOX can therefore be used as a repair coating over previously painted surfaces and can be applied to metal suffering from corrosion damage, provided that all flaked paint and loose rust are removed.

The thickness attained with just one layer (100 µm of dry film) allows the creation of a reliable barrier in a single pass, preventing the ingress into the metal of moisture, oxygen and other aggressive media.

INERTA MASTIC MIOX winter hardener enables paint work in sub-zero temperatures.

### TEKNODUR 0050 polyurethane top coat

Application of the TEKNODUR 0050 polyurethane top coat enables the creation

of any colour scheme in accordance with the preferred corporate identity, provides a decorative touch and helps to improve the protective properties of the coating, especially in conditions subject to intense UV radiation.

### Various applications

Undoubtedly, this paint system can be applied not only in oil-and-gas sector facilities, but also on many other metal structures, such as mobile phone towers, and to the structures of stadiums, shopping complexes and airports. Testing and approval of this system by GAZPROM's specialists provide assurance that critical structures will be protected from corrosion, including when the system is used at facilities beyond those owned by GAZPROM.

In spite of its relatively recent certification, this corrosion protection system is already popular in the gas industry. The abovementioned Teknos materials have been used to paint the gas-compressor units of GCS Compressor Shop-1 for the Zapolyarnoye OGCF (customer Gazprom Transgaz Surgut LLC), which will be operated in harsh arctic conditions. Teknos materials are also protecting a section of the Sosnogorsk Line Production Department's gas trunk line at Gazprom Transgaz Ukhta LLC.

### Reliable technical support

Teknos does not merely sell paints and coatings. Our technical support service, research staff and the entire Teknos team will provide you with reliable support in solving the complex problem of corrosion protection. This, of course, is a critical element in equipment operability assurance. To help you make the optimum choice in protection, Teknos is investing great effort in technical support, provides recommendations and is ready to provide training in the handling of its materials.

All supplied products are certified. The product quality assurance system of Teknos Group complies with International Standard EN ISO 9001, while the environment protection system is certified in accordance with EN ISO 14001.

 **Mikhail Buchnev**  
Technical support manager/Metal Industry  
TEKNOS Russia





# Teknos Protective Paint Systems Certified for Rosneft Company

Teknos continuously pays special attention to the certification of new protective paint systems. This provides our distributors with greater business opportunities on the Russian corrosion protective coatings' market.

One of last year's main goals was to have Teknos protective paint systems included in Rosneft's Technological Instruction titled "Corrosion protection of the capacity technological equipment" (version 2.00). The aforementioned Rosneft document entered into force in mid-January 2013.

The following Teknos protective schemes have been included in the Technological Instruction:

## 1. Paint systems for protecting the external surfaces of crude oil storage tanks

### SYSTEM 1.1

EPZn(R)EPPUR 240/3-FeSa2½

TEKNOZINC 80 SE, 1 x 40 µm  
TEKNOPLAST PRIMER 7, 1 x 150 µm  
TEKNODUR 0050, 1 x 50 µm

Corrosivity categories and expected durability:  
C3: 15-20 years  
C4: 15-20 years  
C5-M: 10-15 years

### SYSTEM 1.2

EPPUR 240/3-FeSa2½

INERTA MASTIC MIOX, 1 x 100 µm  
TEKNOPLAST PRIMER 7, 1 x 80 µm  
TEKNODUR 0050, 1 x 60 µm

Corrosivity categories and expected durability:

C3: 15-20 years  
C4: 10-15 years

### SYSTEM 1.3

EPPUR 160/2-FeSa2½

INERTA MASTIC MIOX, 1 x 100 µm  
TEKNODUR 0050, 1 x 60 µm

Corrosivity categories and expected durability:

C3: 10-15 years

2. Paint systems for protecting the internal surfaces of crude oil storage tanks

### SYSTEM 2.1

EP300/3-FeSa2½ normal type

INERTA PRIMER 3, 1 x 125 µm  
INERTA 51, 1 x 125 µm  
INERTA 50, 1 x 50 µm

### SYSTEM 2.2

EP300/2-FeSa2½ normal type

INERTA 270, 2 x 150 µm

### SYSTEM 2.3

EP340/2-FeSa2½ strengthened type

INERTA 270, 2 x 170 µm

## A top traded oil and gas company

Rosneft is Russia's leading petroleum company and ranks among the world's top traded oil and gas companies. It primarily engages in the exploration and production of hydrocarbons, the production of petroleum products and petrochemicals, and the marketing of the related outputs.

Rosneft's corporate strategy is aimed at establishing a sound basis for the company's long-term sustainable development. The company is included in the Russian Government's List of Strategic Enterprises and Organizations.

Inclusion of Teknos' protective paint systems in Rosneft's Technological Instruction provided our distributors with an additional opportunity to supply Teknos paints for projects by Russia's top-traded oil and gas company. More detailed information on the company can be found at [www.rosneft.ru](http://www.rosneft.ru)

 **Alexander Chibisov**  
Sales manager/General Industry  
TEKNOS Russia

## Pipeline Coating 2013

# Pipeline Coating 2013 in Vienna

Teknos will participate in the **Pipeline Coating 2013** international conference on 18-20 February 2013, in Vienna, Austria.

Pipeline Coating 2013 provides a forum for the world's leading pipeline contractors, op-

erators, pipe mills and pipe coaters, engineers and specifiers, researchers, and raw material and machinery suppliers. At this forum, the participants debate the latest pipeline protection technology and worldwide industry trends.

**For further information**, please contact:  
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## Coating Solutions for Pipelines

Teknos has published the **Coating Solutions for Pipelines** brochure in English, containing wet painting and powder coating paint systems for pipelines.

You can download the brochure as a pdf file from the Brochures section of the Teknos metal website: [www.teknos.com](http://www.teknos.com).

You can also order a brochure by sending an email to: [newsletter@teknos.fi](mailto:newsletter@teknos.fi).

