

**ИНСТРУКЦИИ ПО ИСПОЛЬЗОВАНИЮ НОВОГО  
ПРЕОБРАЗОВАТЕЛЯ/МОДИФИКАТОРА РЖАВЧИНЫ НА ОСНОВЕ  
ЛОКАЛЬНЫХ СЫРЬЕВЫХ МАТЕРИАЛОВ**

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**Аннотация:** в этой статье говорится о создании состава преобразователя/модификатора ржавчины с улучшенными физико-механическими и технологическими показателями, высокими адгезионными и антикоррозионными свойствами, большей устойчивостью фосфатных слоев для металлоконструкций. В статье также предлагаются инструкции по применению состава в разных условиях производства, такие как применение состава на новой поверхности со следами межоперационной смазки или с окалиной; применение состава на оцинкованной поверхности под покраску; применение состава на новой поверхности под ремонтно-сварочные работы; применение состава на ржавой поверхности до 150 мкм и более с прокатной окалиной и без; применение состава на старом - прокорродированном лакокрасочном покрытии.

**Ключевые слова:** модификатор, нитролизин, гексаметилентетрамин, фурфуроловый спирт, кислотная коррозия, химическая устойчивость, фосфатный слой.

**INSTRUCTIONS FOR USING A NEW RUST CONVERTER/MODIFIER ON THE  
BASIS OF LOCAL RAW MATERIALS**

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**Abstract:** the article is about the installation of a pilot plant to produce a rust converter/modifier based on extraction phosphoric acid, hexamethylenetetramine and the influence of technological factors on the process of obtaining a converter / modifier of rust. Optimal technological factors are revealed. Based on the obtained research results, a coating instruction that is proposed by developers under different production conditions brought force in the article. Instructions for applying the formulation to a new surface with traces of interoperational lubrication; the formulation on a galvanized surface for painting; the composition to a new surface for repair and welding work; using the composition on a rusty surface up to 150 μm. and more with rolling scale and without the exfoliated-loose rust, using the composition on the old - corroded paintwork, the compound, observe the following safety measures are briefly recommended in the article.

**Keywords:** coatings, applications, instructions, scale, rust, modifier, composition, surface, depth, sour.

УДК 621.45.038.72

In the production enterprise "Khorezm anticorruption invest" from March 2 to March 25, 2015, a pilot plant was installed to produce a rust converter/modifier based on extraction phosphoric acid, hexamethylenetetramine, etc., during which, from March 25 to May 18, 2015 [2]. The proposed technology was tested and the influence of technological factors on the process of obtaining a converter / modifier of rust was studied [3]. Optimal technological factors are revealed. Based on the results of the research, it is necessary to note the following for the application of the coating, we developers, offer the following instructions for the use of the formulation in different production conditions.

When applying the formulation to a new surface with traces of interoperational lubrication or with scale the new surface with a cloth that is lightly moistened in the composition, removing all the oily stains and the remnants of the composition should be grated. In 15 minutes at an air temperature of 23 - 25°C and a humidity of

60-65% - until the surface dries completely, after which, without any surface treatment, a paint and varnish coating is recommended to apply.

*When applying the formulation on a galvanized surface for painting*, the surface with a cloth that is lightly moistened in the composition, removing all the oily stains and the remnants of the composition would be grated. In 15 minutes at an air temperature of 23 -25°C and a humidity of 60-65% - before the surface dries completely, after which, without any surface treatment, there applied a varnish-and-paint coating.

*When applying the composition to a new surface for repair and welding work*, the surface with a cloth that is lightly moistened in the composition, removing all the oily stains and the remnants of the composition could be grated. Within 30 days in workshop conditions, or outdoors under a canopy with air humidity of not more than 90%, carried out all the repair work, then applied a second layer of the modifier at an air temperature of 23 - 25°C and humidity of 60-65% - until full drying of the surface (depends on the temperature and humidity of the air), then without any surface treatment, a paint and varnish coating should be applied.

*When using the composition on a rusty surface up to 150 µm. and more with rolling scale and without the exfoliated* - loose rust should be remove. Do not remove the densely flattened rust. Apply in one layer of the modifier to the surface, by rubbing it, rubbing the composition into a rusty surface and a surface with a rolling scale, a roller, a brush, rags. With rust above 150 microns, after 5-10min. apply a second layer at an air temperature of 20-25°C and a humidity of 60-65%.

*When using the composition on the old - corroded paintwork*. Remove old paintwork and peel off loose loose rust. It is not recommended to remove tightly bound rust, apply the composition to the surface, by rubbing it, rubbing the composition into a rusty surface and the surface with a rolling scale, roller, rags. Wait for 1 hour at an air temperature of 20-25°C and a humidity of 60-65% until the surface dries completely (depends on the temperature and humidity of the air), after which, without any surface treatment, to put a paint and varnish covering.

*When applying the composition for welding seams*. Clear the seam from the welding slag and apply the composition to the surface damaged by welding. It is allowed to apply the composition on the surface with a temperature of up to 175°C., the drying time is from 3 to 5 minutes, without any surface treatment, apply a protective coating.

*Other methods of applying the composition*. Difficult places can be sprayed. With abundant application, and high humidity, the drying time increases from 4 hours - until the layer dries completely, after which, without any surface treatment, a paint and varnish coating must be applied. For small parts, you can apply the dipping method with barbatage in baths, stainless steel or plastic for 3 minutes, followed by drying for 4 hours - until the layer dries completely, after which without any surface treatment, a paint and varnish coating could be applied. Consumption, regeneration and disposal are consistent with the manufacturer. In some cases, after treatment of contaminated surfaces with loose rust, flaking scales, a powdered rash may appear, it is recommended to treat these areas again or after drying, dust the surface with air.

*Additional information on the use of the formulation*. The composition can be applied and dried at an air temperature of 10°C to + 40°C. Recommended surface temperature for processing from 5°C to + 175°C. Depending on the composition of the rust, the layer appeared has a color from gray to black. In cases where a surface with a thick grease, such as lithol or graphite grease, and the composition is not able to degrease, the surface with solvents will degrease.

*When applying the compound, observe the following safety measures*: Respirators, goggles, rubber gloves are necessary. It is not permitted to spray indoors. In the production of spraying carried out in a chamber with an exhaust, observing safety measures in accordance with GOST. It is for inside (interior) use. In cases of spillage may be neutralized with soda. If contact with skin or eyes, recommended to wash with water or consultation of a doctor. Shelf-life is Unlimited. The warranty period of storage is 1 year and is stored from - 20°C to + 40°C. The mass is not flammable and not explosive.

### ***References / Список литературы***

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