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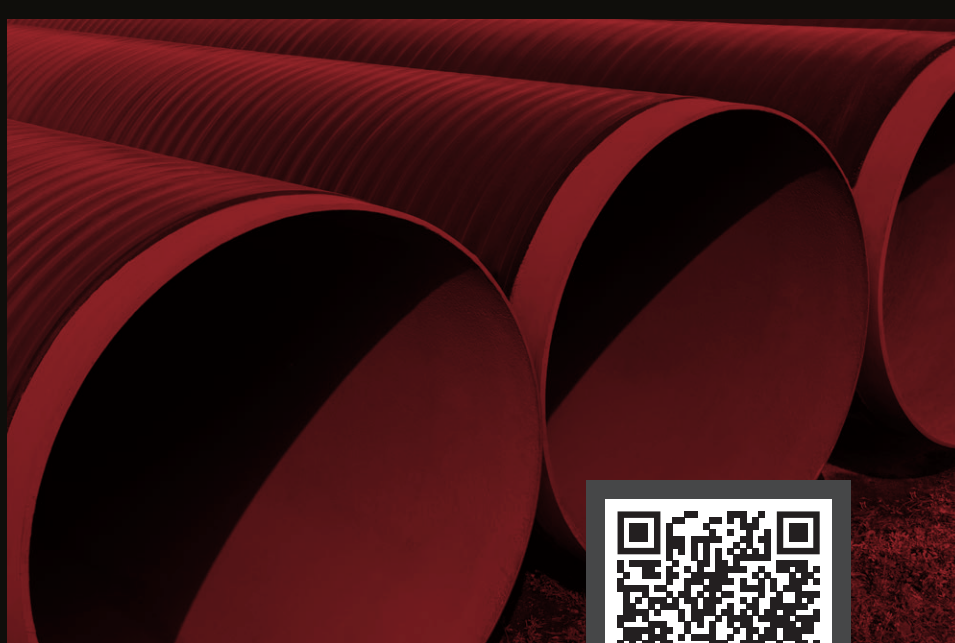
УКР ТРУБО ІЗОЛ

UKR TRUBO IZOL



UKRAINIAN TUBE & INSULATION COATINGS

Scientific and production enterprise "Ukrtruboisol" was founded on August 27, 2000, located in the Dnipropetrovsk region. "Ukrtruboisol" from the day of its foundation to today holds a leading position in the market of corrosion-resistant coated steel pipes diameter range from Ø25 to Ø1422.

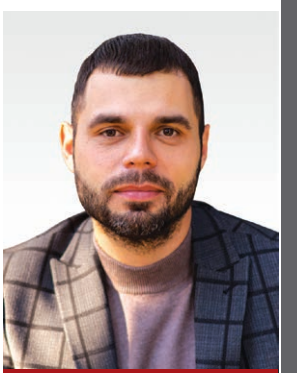
Scientific and production enterprise "Ukrtruboisol" has been operating in the anti-corrosion coating for more than 20 years, and has proven itself as a reliable manufacturer and supplier of high-quality products, providing a long-term (up to 50 years) pipeline system operation.

Every day the company improves its technology to reach a new and better level of its products

Since November 2020, the company has mastered the production of longitudinally welded steel pipes with a diameter of 406.4-1422 mm, with a wall thickness of 6 to 24 mm and a length of up to 12 m from steel of strength class and category up to K60 and X70 L485, accordingly.

Chairman of the Board
Krasnopolskyi Serhii

Chief Executive Officer
Steblovtsev Pavlo



Chief Business Officer
Chekmez Vitalii

The above became feasible thanks to a state-of-the art line for longitudinal seam electric welded pipe production. This line is fitted with up-to-date equipment to allow a complete production circle of large diameter pipes for main oil and gas pipelines.

The priority of our company is Quality. Thanks to the quality of our products, our company has gained authority as in the domestic and as well as international markets.


Bureau Veritas Certification
ISO 9001:2015


Bureau Veritas Certification
ISO 14001:2015


Bureau Veritas Certification
ISO 45001:2018


ZERTIFIKAT
CERTIFICATE


CERTIFICATE
LLC SPE WITH FI «UKRTRUBOIZOL»
2, Zavodska street., smt Meliorativne, Novomoskovsk district, Dnipropetrovsk region, 51217, Ukraine


CERTIFICATE of CONFORMITY
OF THE FACTORY PRODUCTION CONTROL
CERTIFICATE No: 0090-CPR-1210


CERTIFICATE


ДЕКЛАРАЦІЯ ПРО ВІДПОВІДНІСТЬ

Pipes coated by our company were used for the construction of the Zhulino-Nadvornaya oil pipeline, the construction of the *Dzhankoy-Armyansk, Suvorovo-Zaliznichne, Yalta-Foros, Shebelinka-Dnepropetrovsk-Odessa, Brody-Derjcordon* gas pipelines, as well as for gasification of cities Sudak, Shcholkino, Belgorod-Dniester and many other projects.

Our pipes with and without coating were used in their projects by the top companies of operating in oil and gas systems included in the structure of *NJSC Naftogaz of Ukraine, GTS Operator of Ukraine, Interpipe Corporation,* Kazakh *Kaztransoil* and *Kaspiangaz,* Azerbaijani *Azerigaz* and many others.

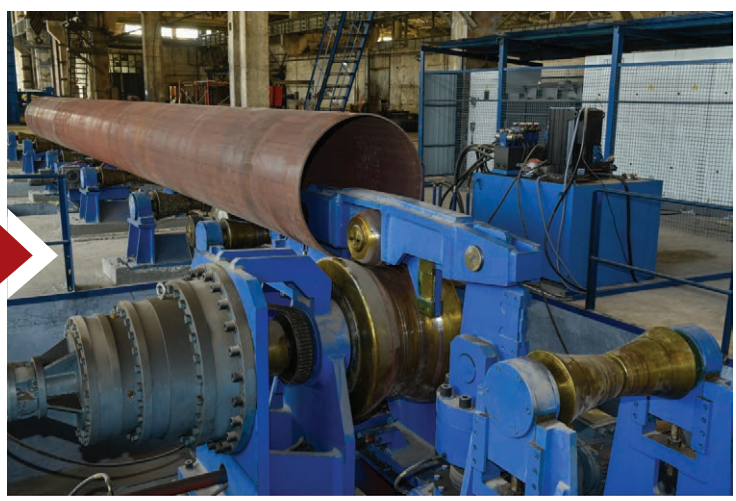
Pipes with the Ukrtruboizol brand were delivered to Turkmenistan, Azerbaijan, Kazakhstan, Uzbekistan, Georgia, Armenia, Lithuania, Latvia, Moldova, Slovakia, Serbia, Croatia, Tunisia, Libya, Lebanon, Nigeria, China and others.

The modern large diameter pipe production line includes:

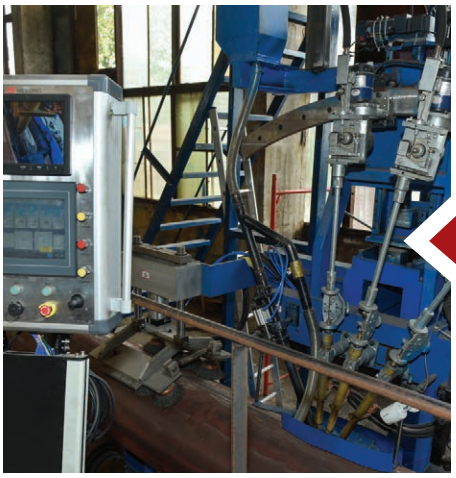
- Edge beveling machine, where lengthwise edges of a plate are processed in order to achieve the specific width and prepare the edges for welding.

- JCO press for forming tubular billets. Total weight of this unit equals to over 300 tons. Forming is performed in several passes until the billet achieves the specific cylinder shape. This process is controlled with the help of automated computer-aided system.

- A preforming mill for bending flat sections of longitudinal edges of a tubular billet in automatic mode by rolling the edges between rollers of a bending machine.



- An assembling and welding mill to assemble a tubular billet and produce a continuous process seam by gas-shielded welding in automatic mode.



- Mills to weld inner and outer process seam using automatic submerged multi-arc welding (two or three arcs).

- ГHydro-mechanical expanding machine. To meet the requirements of current regulatory documentation, pipes are subject to cold expansion along the whole length on the hydro mechanical expander. This stage composes of the following: pulling a tapered mandrel inside the pipe to the specific length (pace), expansion of this pipe section, load relief, mandrel feed to the specified pace.

Expansion results in the following:

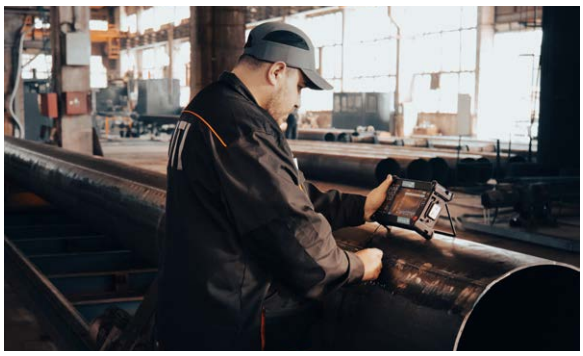
1. Stabilization of mechanical properties of the pipe base metal, and hardening when plastic strain is achieved.
2. The tubular billet gets the required shape and size (ovality, deviation from estimated circumference, out-of-straightness, etc.)
3. Additional quality check of welded seam.

- Hydraulic tester. Check of strength and continuity of both pipe base metal and welded seam using inner hydraulic pressure.

Hydraulic testing is a necessary stage to confirm pipe reliability as a part of pipelines operating under pressure throughout their service life. Considering a potential hazard to human life or health and man-caused unsafety in case of malfunction or accident shall be of high priority.

Pipes that have successfully been passed expansion and hydrotested are controlling by a certified test laboratory. Quality of pipe welds is controlled by visual, ultrasonic and/or X-ray methods.

Steel pipe production line enables to manufacture products under national, international and state-to-state standards as follows: ISO 3183:2019, DSTU ISO 3183:2017 (ISO 3183:2012, IDT), API Spec 5L, DIN EN 10219-1,2, DIN EN 10217-1,3,5,6, DSTU 9219:2023, DSTU 9218:2023, TU U 24.2–05757883–095:2022, DSTU 8943:2019, GOST 20295-85, GOST 10706-76, GOST 10705-80.



Longitudinal electric welded steel pipes

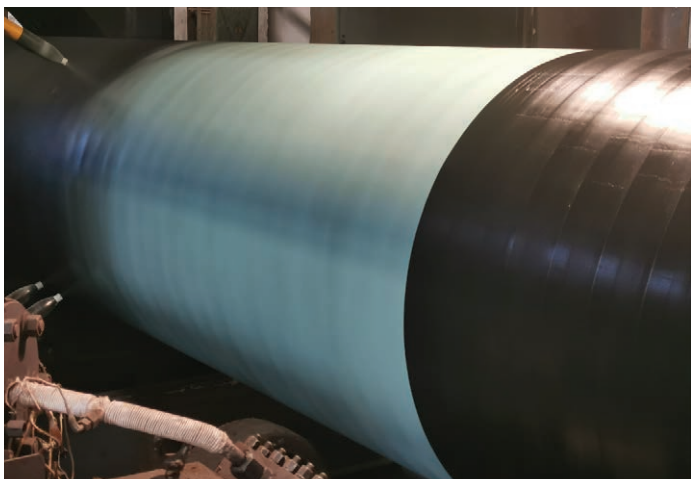
Standard	Сортимент труб		Steel grade or strength class
	Outside diameter, mm	Wall thickness, mm	
Expanded steel pipes for Oil & gas pipelines			
DSTU ISO 3183 PSL 1, PSL 2	426-1422	6,0-24,0	A (L210), BM(L245M), X42M(L290M), X46M(L320M), X52M(L360M), X56M(L390M), X60M(L415M), X65M(L450M), X70M(L485M) К34, К38, К42, К48, К50, К52, К54, К55, К56, К60
DSTU 9219:2023 type 3	508-1420	7,0-24	К34, К38, К42, К48, К50, К52, К54, К55, К56, К60
TU U 24.2–05757883–095:2022 type 3	426-1420		
GOST 20295 type 3 as expanded	530*-1420		
Pressure pipes			
EN 10217-1/3/5/6 DSTU EN 10217-1/3/5/6	426-1422	7,0-24,0	P195TR1, P195TR2, P235TR1, P235TR2, P265TR1, P265TR2, P235GH, P265GH, P215NL, P265NL, P275N, P275NL1, P275NL2, P355N, P355NH, P355NL1, P355NL2, P460N, P460NH, P460NL1, P460NL2
General purpose pipes			
DSTU 9218:2023 DSTU 8943:2019 GOST 10706-76, GOST 10705-80, GOST 10704-91	426-1420	6,0-24	Carbon and low-alloy steel grades 08, 10, 15, 20, Ст3сп, 09Г2С, 09Г2ФБ, 12Г2С, 13ГС, 17ГС, 17Г1С, 13ГС-У, 17Г1С-У, 13Г1С-У, 10Г2ФБ
Hollow profiles			
EN 10219-1/2 DSTU EN 10219-1/2	426-1422	7,0-24,0	S235JRH; S275J0H; S275J2H; S355J0H; S355J2H; S355K2H – NLH, MLH
Pipes for main pipe lines			
API Spec 5L, ISO 3183 PSL 1, PSL 2	426	7,0-12,0	A (L210), BM(L245M), X42M(L290M), X46M(L320M), X52M(L360M), X56M(L390M), X60M(L415M), X65M(L450M), X70M(L485M)
	508	7,0-14,0	
	558	7,0-14,0	
	610	8,0-15,0	
	660	8,0-16,0	
	711	8,0-16,0	
	762	8,0-16,0	
	813	8,0-16,0	
	864	8,0-16,0	
	914	8,0-16,0	
	965	10,0-17,0	
	1016	10,0-18,0	
	1067	10,0-20,0	
	1219	12,0-22,0	
	1422	12,0-24,0	

*If required by the customer, production of Ø 426 mm pipes is available.

With a new steel pipe production line put into operation, NPP Ukrtruboizol has become the largest domestic manufacturer of longitudinal electric welded steel pipes with outer and inner anti-corrosion coating as well as with smooth-surface coating for main gas- and oil pipelines.

In addition to the new pipe production line, our company consistently upgrades the functioning coating lines. Thus, in 2020 an advanced system for powder primer applying was erected. This allows to ensure a better coating to steel adhesion.

While mastering production of a new product, we in the first turn focus on customers, enhance our position in significant markets and thus, we maintain our competitive advantage.



Currently the company operates the following corrosion-resistant coating lines:

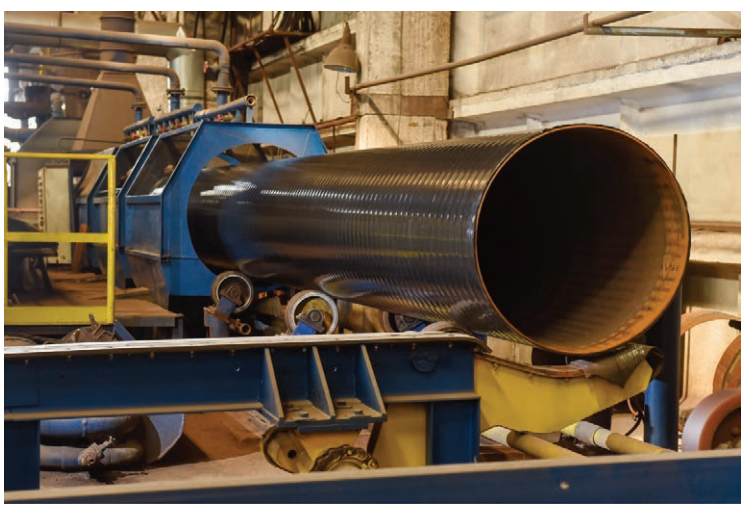
1. Extruded polyethylene pipe coating line Ø 25-89 mm
2. Extruded polyethylene pipe coating line Ø 32-530 mm
3. Extruded polyethylene pipe coating line Ø 219-1020 mm
4. Extruded polyethylene pipe coating line Ø 530-1420 mm
5. Line of internal smooth and corrosion-resistant epoxy pipe coating Ø 57-1420 mm
6. Line of external coating of pipes with polyurethane Ø 32-1420 mm
7. Used pipe renovation line Ø 219-1420 mm

Extruded polyethylene three-layer external corrosion-resistant coating (3PE) (up to 4.5 mm)

This is a highly reliable protective coating that consists of epoxy primer layer, adhesive layer and polyethylene layer.

Coating ensures safe and long-term (up to 50 years) corrosion protection for underground and underwater oil, gas and water pipelines under high-temperature service (to 140°C) under poor pipeline accessibility (such as submerged, under roads and etc.), extreme mechanical loads, corrosive soils, earth current soils and etc.

Extruded polyethylene two-layer external corrosion-resistant coating (2PE)



Coating ensures safe and long-term (up to 50 years) corrosion protection for underground oil, gas and water pipelines in corrosive soils, earth current soils and etc.

Two-layer coating consists of adhesive layer and polyethylene layer

Properties and advantages of two and three-layer extruded polyethylene coatings:

- Provides a high level of protection against mechanical damage due to high impact resistance; adhesion, compression resistance, transition

resistance. Pipeline operating temperature from -20°C to +60°C with short-duration peak temperatures up to +80°C.

- Reliable and long-term corrosion protection of pipelines in diameter range from 32 mm to 1420 mm.
- Recommended coating thickness: 2.2-3.5 mm. Depending on the customer's requirements thickness ≥ 5 mm is available.
- High adhesion ensures that coating will retain all properties while pipe bending.
- Due to high abrasive and mechanical resistance and good adhesion coatings are employed in controlled drilling, road and river crossing, off-shore pipe laying.
- Conformity to DSTU 4219, GOST R 51164, DIN 30670, BS EN 10288-2002, NFA 49-710, NFA 49-711.

Extruded polypropylene three-layer external corrosion-resistant coating (3PP) (up to 5.5 mm)

Highly reliable protective coating consists of epoxy primer layer, polymeric adhesive layer and polypropylene layer.

Polypropylene coatings feature increased mechanical performance. Polypropylene based coated pipes are recommended for construction of pipelines employing open-trench pipe laying and trenchless pipe laying.

Advantages of 3-layer polypropylene based coating furnished by NPP Ukrtruboizol:

- High impact and mechanic resistance.
- High corrosion protection.
- High temperature resistance (up to +110°C).
- High substrate adhesion.
- High resistance to severe environments.
- Increased pipe operation life.

External polyurethane corrosion-resistant coating (200-2000 µm)

This pipe coating is used for underground laying in soils with low and medium corrosive aggressiveness. Used in pipelines for various agricultural water supply, irrigation systems, etc. Well proven in the coating of pipelines in the marine environment.

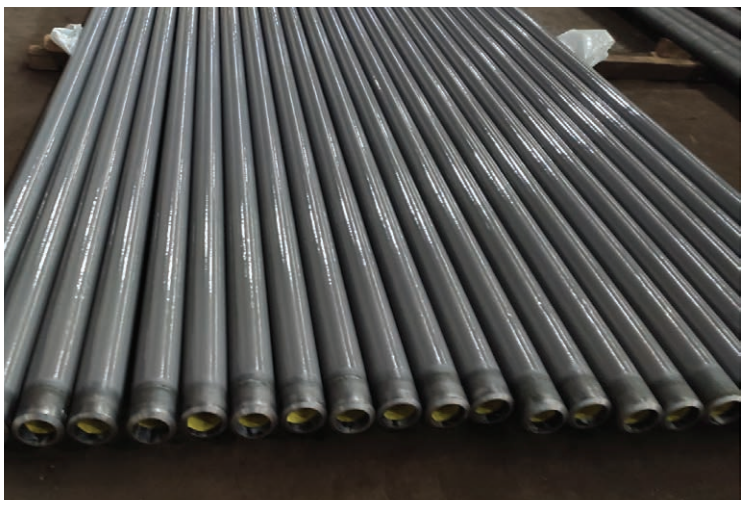
Polyurethane gained popularity thanks to the exceptional properties as follows:

- Low heat-conduction coefficient;
- High mechanical strength.
- Good ultraviolet resistance.

The product withstands temperatures from -50°C to +120°C and is employed for coating Ø 42-1720 mm pipes.

External epoxy corrosion-resistant coating (thickness of 200-2000 μm)

This coating is intended for protecting steel pipes and pipe works from corrosion and mechanical damage. It is used for pipelines, enclosures, sheathings, for furnishing overpasses under motorways, railway lines as well as for pipelines with protective composite coatings. It is applied on pipes with diameter from 42 to 1720 mm.



Features:

- Additional protective epoxy layer that ensures better mechanical stability and environmental resistance.
- Production of ultraviolet resistant coating is available.

Internal epoxy corrosion-resistant coating (thickness of 200-1000 μm)

Corrosion resistant epoxy coating is factory applied on internal pipe surface in order to prevent internal corrosion. Its application in water pipelines results in improved quality of water and less pipeline overgrowing. It is applied on pipes with diameter from 42 to 1720 mm.

Properties and advantages of corrosion-resistant epoxy coating:

- It is used in pipeline systems transporting crude oil, (high-sulfur oil, watered oil and high wax content oil), water (portable, service water, seawater, drain and sewage), chemicals, jet fuel and etc.
- Long-term corrosion-resistant protection in pipe operation, storage and transportation.
- Operation temperature: from -40°C to +120°C.

- Recommended coating thickness: 300-350 μm. Subject to customer's requirements it can be changed (from 100 to 1000 μm) This coating enables to increase pipe capacity, reduce transportation costs and expenses connected with inline inspection during pipeline construction.
- High mechanical stability and impact strength, rubbing endurance, bending resistance with all operation properties maintained.

Internal smooth epoxy pipe coating (40-150 μm)

It is a smooth epoxy coating which is factory applied on internal pipe surface in order to enhance the capacity of main gas and oil pipelines and consequently to reduce transportation costs. It is applied on pipes in diameter range from 57 mm to 1420 mm.

Properties and advantages of smooth epoxy coatings:

- Enable to increase pipe capacity up to 10-15%, reduce transportation costs and costs incurred into inline inspection during pipeline construction.
- Operation temperature: from -40°C to + 180°C.
- Recommended coating thickness: 50-75 μm and is subjected to alteration if required by a customer.
- High mechanical stability and impact strength, rubbing endurance, bending resistance with all operation properties maintained.
- Comply with API RP 5L2, Ukrainian and other regulatory technical documentation.

As of today, the performance of external coating lines with extruded polyethylene is from 100 up to 300 kilometers of pipes per month, depending on the diameter. The performance of the polyurethane coating line is 40-50 kilometers of pipes per month, the productivity of the internal epoxy coating line is 100-150 kilometers of pipes per month.

Heat shrink materials

In 2013 NPP Ukrtruboizol mastered production of heat shrink sleeves for welded joints of pipes with diameter of 114-1420 mm, as well as 110 mm-450 mm wide heat-shrinkable tapes for Ø 32-1420 mm pipes.

These products are made in three versions as follows:

1. Heat shrink sleeve two-layer protective coating.
2. Heat shrink sleeve with three-layer protective coating.
3. Heat-shrinkable tape with two-layer protective coating.

Heat shrink sleeve is based on a tape made from silane- modified polyethylene. Such type of polyethylene is also called chemically cross-linked polyethylene.

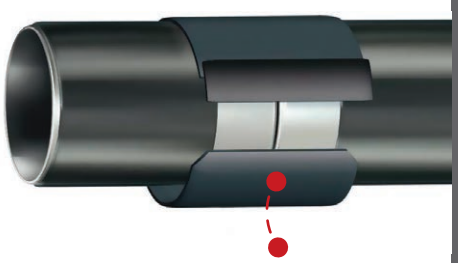
A distinct advantage of silane-modified polyethylene is its resistance to high temperatures while heat shrink sleeve installing: up to 140°C with short time peak effect of heat sources. Thus, cross-linked polyethylene based tape shows good resistance to overheating during installment on welded pipe joints.

Features and advantages of heat shrink sleeve:

- High protection (if compared with other polymeric coatings) from mechanical damages due to high impact strength, adhesion, indentation resistance, cathodic disbondment and transition resistance.
- Pipe operation temperature: from -40°C to +60°C with short time peak temperatures up to +120°C.

- Reliable long-term corrosion resistant protection of welded joints on Ø 114 mm-1420 mm pipelines.
- Recommended coating thickness: 2.0-3.0 mm.
- Heat shrink sleeves are utilized for welded joints on buried gas-, oil and water pipeline systems.
- Meets the requirements of GOST 4219-2003.

Apart from to heat shrink materials of own production Ukrtruboisol is a distributor of coating materials DENSO sleeves and tapes DEKOTEC for anticorrosive protection of pipeline joints. For about 100 years, DENSO Group has represented the experience, quality and reliability of products in the field of anticorrosion protection. Ukrtruboisol is the official representative of DENSO Company (Germany) in Ukraine.

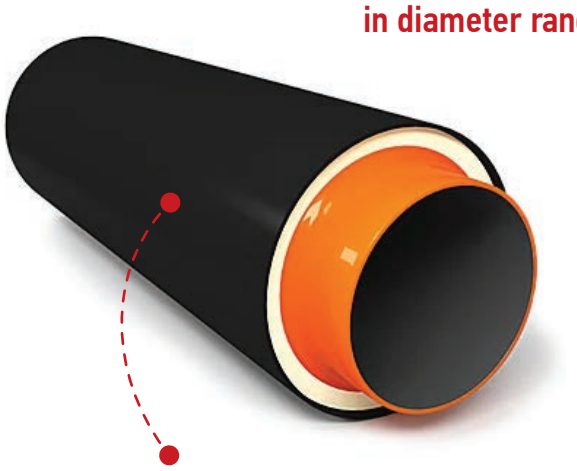


DEKOTEC®-HTS70

Used pipe renovation

In 2010 at our Company was organized the workshop section of renovation of steel pipes that were used. It made possible to carry out a certain scope of work in the shop instead of doing it in fields. *Renovation involves the whole restoration to-do list on used pipes: incoming inspection, cleaning-up, flaw detection and repair (sealing, padding, grinding, cutting out of defective areas, welding in, facing, beveling).* After all the repairing works have been completed, the repaired pipe subjects to in-process quality control followed by acceptance radiographic and ultrasonic inspections according to GOST 14782-86 and GOST 7512-82. If required by the customer, pipes can undergo hydro testing in accordance with regulatory documentation.

Polyurethane foam based pipelines and shaped objects in diameter range from 32 mm to 1420 mm



Polyethylene-based mantle pipe

Steel spiral-wound pipe jacket

Polyurethane foam filling-up

SPE “Ukrtruboizol” actively collaborates with companies engaged in pipe heat insulation.

Pipes for heat transport systems are heat insulated with the help of polyurethane foam in polyethylene waterproofing. This is a factory-made integral structure, which consists of inner pipe, outer mantle pipe (polyethylene based or galvanized) and polyurethane foam acting as filling-up.

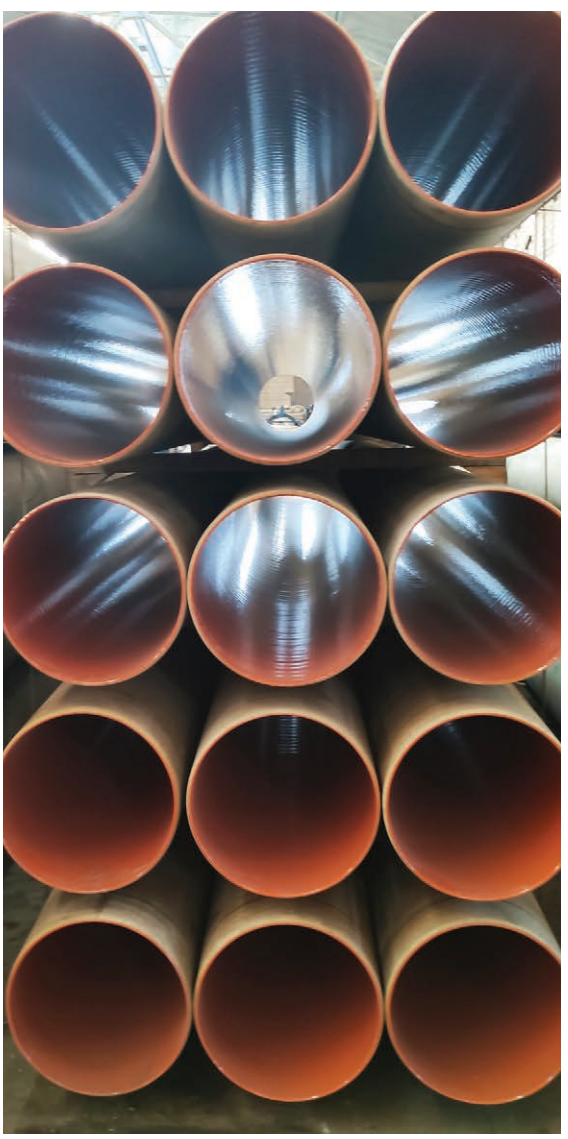
If polyurethane foam based heat insulation fulfilled, pipeline operation life increases to over 30 years with heat losses reduced by several times.

Polyurethane foam layer protects from environmental stress, temperature gradient and from mechanical impact as well.

We are striving to constant development through increasing productive capacities, utilizing materials, supplements, concepts and recent advances of domestic and foreign producers.

Currently, SPE “Ukrtruboizol” is not only successful in pipe coating production but also in creating new and future-oriented activities connected with this area.

The words «first» and «for the first time ever» have become common for our company



Throughout its existence, the company has made the way from several like-minds with shared vision to a recognized leader in corrosion-resistant coating market. Our production is certified for compliance with DSTU ISO 3183:2017 (ISO 3183:2012, IDT), ISO 3183:2019, DSTU 9219:2023, DSTU 9218:2023, TU U 24.2–05757883–095:2022, DIN EN 10219-1,2, DIN EN 10217-1,3,5,6, DSTU 8943:2019, GOST 20295-85, GOST 10706-76, GOST 10705-80, GOST 10704-91, and Technical Regulations for pressure equipment (Resolution of the Cabinet of Ministers of Ukraine No. 27 of 16, January 2019), the European Directive 2014/68/EU harmonized with the EN 10217 standard (for pressure vessels) and the requirements of the EC Construction Regulation 305/2011/EU with the right to apply the CE mark to pipes manufactured according to the EN 10219 standard.

Our company has implemented quality system that complies with the following international standards: ISO 9001:2015, ISO 14001:2015 and ISO 45001:2018, as confirmed by independent certification body Bureau Veritas Certification. Welding process complies with EN ISO 3834-2, as confirmed by independent certification body TÜV AUSTRIA SERVICES GMBH.

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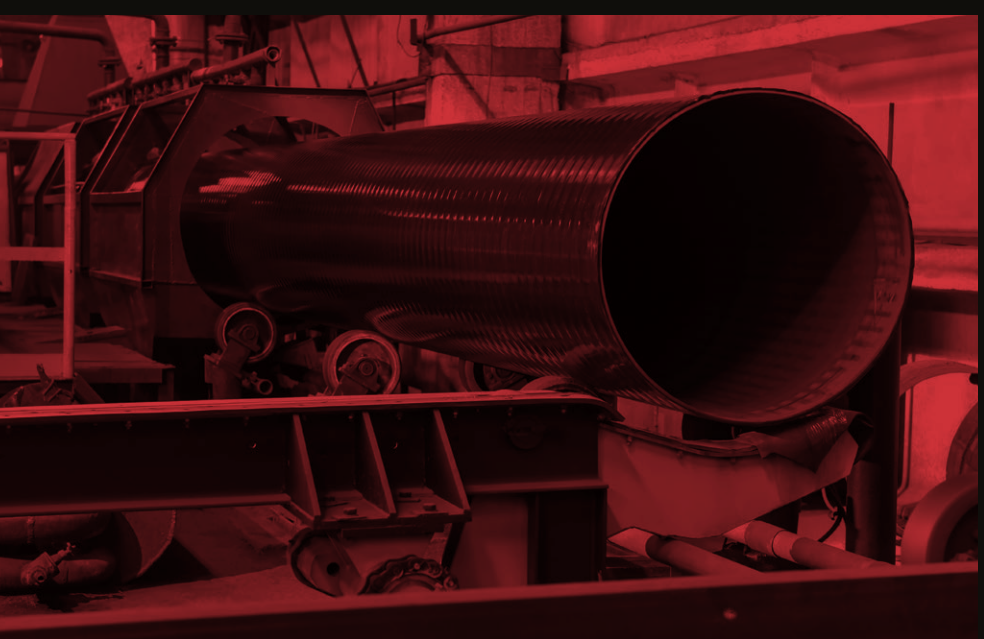

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