

CLIMATE DECLARATION FOR STEEL PIPES, SMALL DIAMETER

Declared unit: 1 tonne of pipes

The climate declaration shows the emissions of greenhouse gases, expressed as CO₂-equivalents. It is based on verified results from a lifecycle assessment (LCA) performed as basis for an EPD®, in accordance with ISO 14025 and EN 15804

Information about the product

OMK manufactures versatile electric-welded pipes with diameters from 21.3 to 1422 mm (0.8–56”) and wall thicknesses from 1 to 48 mm (0.04–1.9”). Equipment and production process employed in pipe shops have been designed using advances in pipe welding technology in Russia and worldwide — to meet current requirements. OMK’s piping products are designed to operate at critical temperatures and in aggressive environments.



Information about the company

United Metallurgical Company (OMK) is one of the largest Russian producers of pipes, fittings and other metal products for fuel and energy, transport and industrial enterprises. It supplies perfectly mature steel and service solutions to the Russian energy industry, including nuclear and heat installations, construction companies, machine building, the automotive sector, railway car construction, and railway transportation.

Vyksa Steel Works (VSW)

One of the oldest metallurgical centres in Russia was established in 1757. The facility produces steel pipes with diameter starting from 21.3 up to 1422 and wall thickness 1 to 48 mm. At customer’s request, pipes can be produced with external three-layer polyethylene/polypropylene anticorrosive coating, as well as with external one-/two-layer anticorrosive epoxy coating.

Rolled steel for pipes is manufactured also at the VSW. This reduces the impacts associated with the raw material delivery.

VSW's Quality Management System (QMS) is applied to the design and production of electric-welded pipes with plain ends manufactured. Using the submerged arc welding method; electric-welded pipes with plain ends manufactured using HFC welding method; electric-welded pipes with external anticorrosion coating and with internal anticorrosion or anti-friction coating; HFC-welded OCTG or tubing pipes (with plain ends or with thread and couplings); hot-formed seamless pipes manufactured from round billets; seamless couplings; solid-rolled railway wheels; steel ingots; hot-rolled steel products, and constructed according to the following standards and specifications: ISO 9001 (GOST ISO 9001); ANSI/ API Q1/ ISO 29001; Gazprom company standard 9001; 97/23/EC Instructions.

The comprehensive management system according to ISO 14001, Environment Management Systems and OHSAS 18001, Occupational Health and Safety Management Systems standards has been in place at the plant since 2009. Beside QMS certification, VSW applies direct certification of the pipe production. To meet requirements of customers from Russia and near-abroad countries, the Vyksa plant’s pipes are certified in accordance with technical Regulations of the Customs Union (TR CU 010/2011, TR CU 032/2013). And VSW offers its products not only on Russian markets, but on international markets as well.

Starting from 1995 Vyksa Plant has American Petroleum Institute (API) certificates with API 5L and API 5CT specifications.

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INDEPENDENT VERIFICATION OF THE DECLARATION AND DATA, ACCORDING TO ISO 14025: EXTERNAL VERIFIER: INDEPENDENT VERIFIER DR HÜDAI KARA, METSIMS SUSTAINABILITY CONSULTING		ACCREDITED / APPROVED BY: THE INTERNATIONAL EPD SYSTEM	
CLIMATE DECLARATIONS FROM DIFFERENT PROGRAMS MAY NOT BE COMPARABLE			
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As requested by Polish customers, certification was carried out for steel longitudinal electric-welded pipes with anti-corrosion coating and uncoated pipes with diameters from 114 to 530 mm and wall thicknesses from 4.5 up to 10 mm of L245NB, L290NB, 415NB, L245MB, L290MB, L360MB, L415MB steel grades, manufactured in accordance with EN 10208-2 with the right to use the W safety sign in marking. The certification was performed by ZETOM Katowice (Poland).

Moreover, Vyksa Steel Works has received a certificate of conformity from TUV Rheinland for electric-welded steel pipes with diameters from 21.3 to 508 mm and hollow sections sized 20 x 20 to 80 x 80 mm and 30 x 20 to 100 x 60 mm manufactured from construction steel with the strength level from S235 to S355, produced to EN 10219-1:2006 with the right to use the CE marking, starting from March 2011.

Climate declaration

The table below shows the carbon footprint of the product, calculated as carbon dioxide equivalents (kg CO₂ eq.) for 1 tonne of pipes.

	Results per 1 tonne of pipes						
	A1-A3	A4	C1	C2	C3	C4	D
GWP-fossil	8.71E+02	5.70E+01	0.00E+00	8.13E+00	3.21E+00	8.25E-01	-3.74E+02
GWP-biogenic	8.36E+02	5.64E+01	0.00E+00	7.65E+00	2.58E+00	7.47E-01	-3.86E+02
GWP-luluc	3.47E+01	5.68E-01	0.00E+00	4.29E-01	6.33E-01	7.69E-02	1.25E+01
GWP Total	9.35E-02	1.95E-02	0.00E+00	5.17E-02	5.46E-04	1.38E-03	-1.04E-01

Other environmental impacts

For the full EPD, see
www.environdec.com and
www.epdrussia.org.

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