



КАМКАБЕЛЬ
ваш проводник в мире энергии

Kamskiy kabel, LLC

Kamsky cable

ООО Камский кабель produces cables and wires on the Kamkabel manufacturing area in Perm that is the largest one both in Russia and in CIS countries. Form of ownership – private property. Total number of employees in the factory is more than 3 000 people.

Since establishing until the present moment Kamkabel factory has been a leader in the production of power cables for 0,6-220 kV, taking share of more than 50% in particular CIS market segments.

We firmly win the top position among cable manufacturers of Russia and CIS countries in cables and wires production output. For the present moment Kamский кабель is the only factory in Russia producing such a wide product line, more than 35 000 of types and sizes.

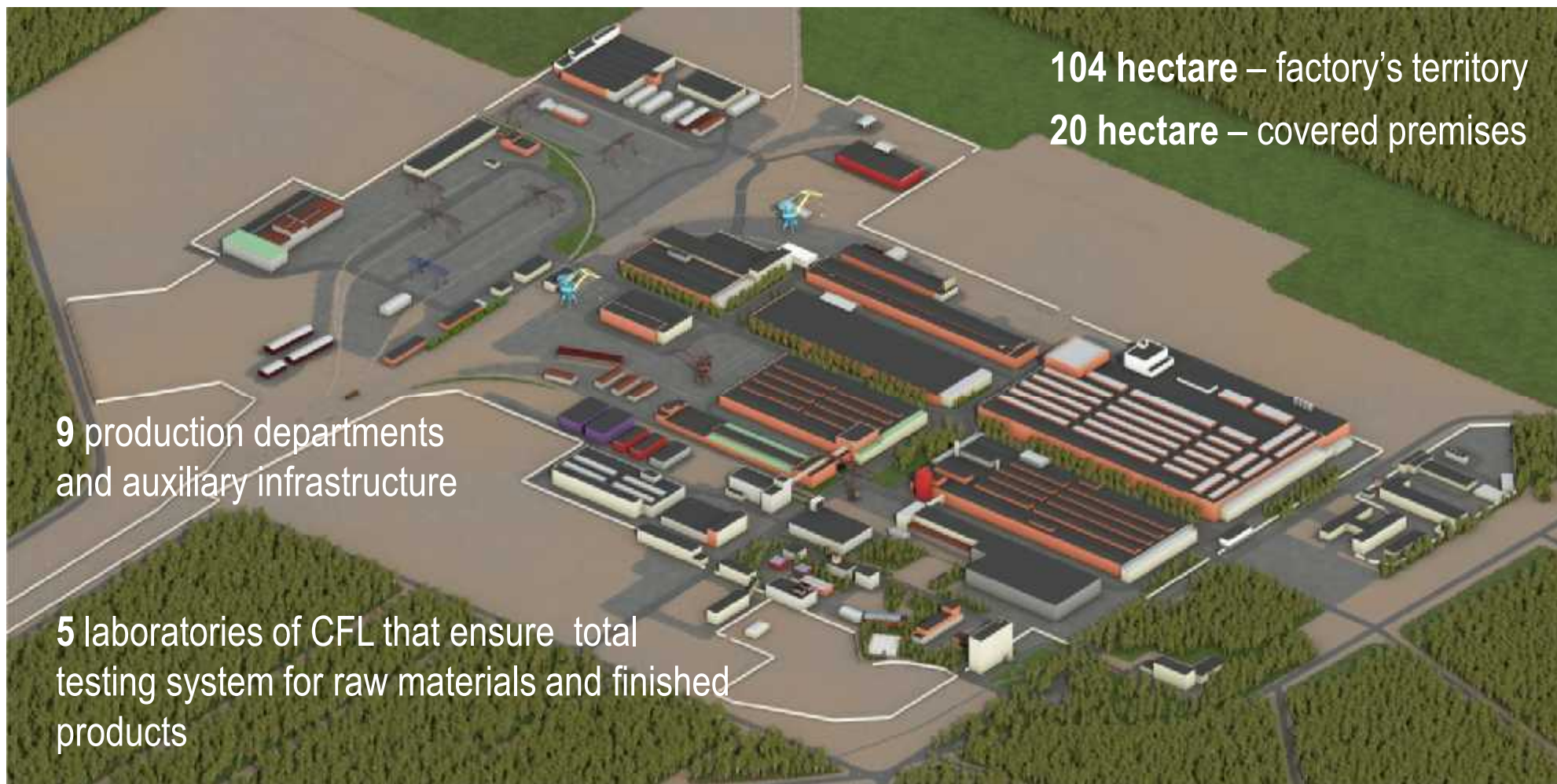
On a regular basis we upgrade the equipment and develop new products manufacture. Investments to production facilities are about 1 billion rubles annually.



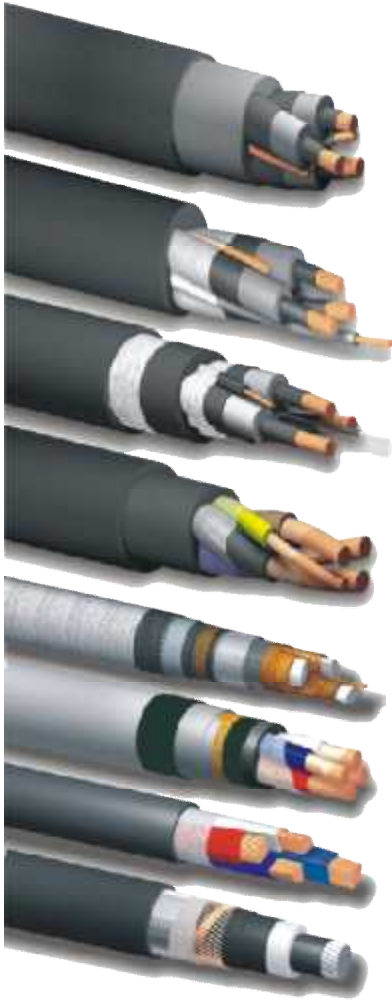
3 000 employees

1-st place among cable manufacturers of Russia and CIS countries in metal processing volume

Kamkabel is the largest production site
among cable factories of Russia and CIS



Products



XLPE insulated cables for voltage up to 220 kV

The share of Kamsky cable in the Russian market for cables 1 kV – 31%, cables 6-220 kV – 37%.

Cables with impregnated paper insulation for voltage up to 110 kV

The share in the Russian market for cables 1 kV – 28%, cables 6-110 kV – 41%.

PVC insulated cables for voltage up to 6 kV

The share in the Russian market for cables up to 1 kV – 16%, cables 1 kV – 13%, 3-6 kV – 34%.

Wires for overhead transmission lines

The share in the Russian market for self-supporting insulated cables – 20%

The share in the Russian market for non-insulated wires – 19%.

Aircraft and hook-up cables and wires

The share of Kamsky cable in the Russian market for aircraft wires – 18%, for hook-up wires – 8%.
For heat-resistant aircraft and hook-up wires – 42%.

Magnet wires

The share in the Russian market – 17%.

Mine and excavators cables

The share in the Russian market – 58%.

Flexible power cables

The share in the Russian market – 30%.

ESP cables

The share of Kamsky cable in the Russian market – 9%.

Branches and dealers

6 branches in the territory of Russia.

Dealers in Tyumen, Odessa and Minsk.

In 2012 a new representative office was opened in Kazakhstan.



Achievements

**Kamsky Cable today is the undisputed leader of the industry.
Achievements of the company in 2011-2013 :**

- prize-winner diploma in the competition «Company of the year» as per RBC's version in the Volga FD;
- regular winning a victory at the regional and federal stages of All-Russian contest «Top 100 products of Russia» in the nomination «Products of industrial and engineering purpose»;
- Kamsky cable is the only cables and conductors manufacturer mentioned in “TOP-200 non-public companies of Russia” rating as per Forbes magazine;
- Kamsky cable is one of only five Russian cables and conductors manufacturers – member of ICF (International Cablemaker's Federation).

In 2013 quality of Kamkabel was recognized internationally – KEMA certificates were obtained for some cables.

OOO Kamskij kabel has got approvals from FSK EES and MRSK Holding for XLPE-insulated cables for rated voltage of 110 kV and 220 kV supply.

Proceeds for the reporting period was 21 billion rubles

«Consummateurs importants»

Power utilities



Metallurgy



Oil & Gas



Building industry



Machine and aircraft building



Petrochemistry



Transport and rolling-stock building



Mining



Electrical engineering





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PRODUCTION CAPACITIES



We produce XLPE insulated cables 110 – 220 kV with aluminium conductors up to 2500 mm² and copper conductors up to 1600 mm².



Maximum cable drum diameter up to 4 meters, maximum weight of one drum up to 30 MT.

XLPE insulated cables for rated voltage of 1 kV
– up to **2 500 km**

Plans for the future – manufacturing cables with XLPE insulation up to 330 kV.

XLPE insulated cables for rated voltage of 6-35 kV – up to **13 700 km** (per conductor)



EPR insulated cables for rated voltage of 1 kV – up to **2100 km**

EPR insulated cables for rated voltage of 6-20 kV – up to **5000 km** (per conductor)



We produce EPR insulated cables up to 1 kV with copper conductors' cross-section of 1 to 400 mm²

We produce EPR insulated cables for voltage 6-20 kV with copper and aluminum conductors' cross-section of 25 to 185 mm²

EPR insulated cables may be sheathed with PVC, PVC-ХЛ, HF, нг(А)-LS, noncombustible rubber.

Plans for the future – production of 35 kV cables.

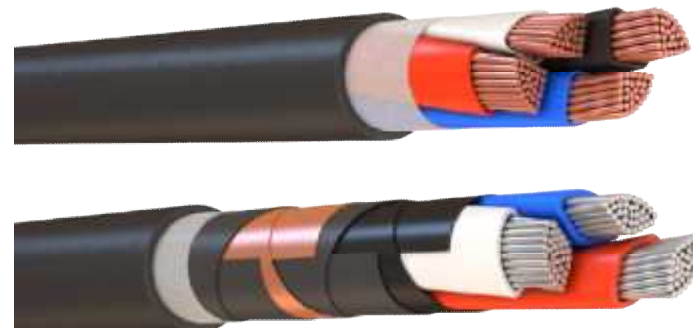


Impregnated paper insulated cables for rated voltage of 1-10 kV – up to **12 000 km**

Impregnated paper insulated cables for rated voltage of 20-110 kV – up to **250 km**

Including cables with insulation impregnated with non-draining compound – up to **500 km**

Cables lifetime – 30 years
Lifetime of cables for 110 kV – 25 years
Warranty period – 4,5 years



PVC insulated cables for rated voltage of 0,66-1 kV cross-section to 10 mm² – up to **70 000 km**

PVC insulated cables for rated voltage of 0,66-1 kV cross-section 16 mm² and more – up to **16 300 km**

PVC insulated cables for rated voltage of 3-6 kV – up to **500 km**

Cables lifetime – 30 years
Warranty period – 5 years



Aerial cables for voltage to 35 kV –
up to **37 000 km**

Warranty – 3 years



Bare conductors AAC, ACSR – up to **15 000 MT**

Cables lifetime – 45 years
Warranty period – 3 years



PVC insulated power wires –
up to **36 000 km**



Cables lifetime – 30 years
(in the open air).
Warranty period – 5 years



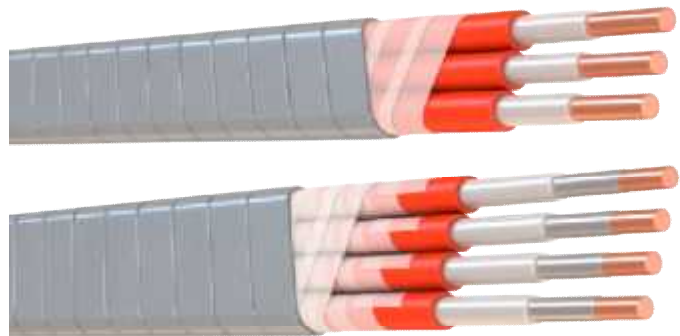
Control cables, PVC insulated – up to
11 000 km

Cables lifetime – 15 years
(in the open air);
25 years (indoors, in tunnels and ducts)
Warranty period – 3 years



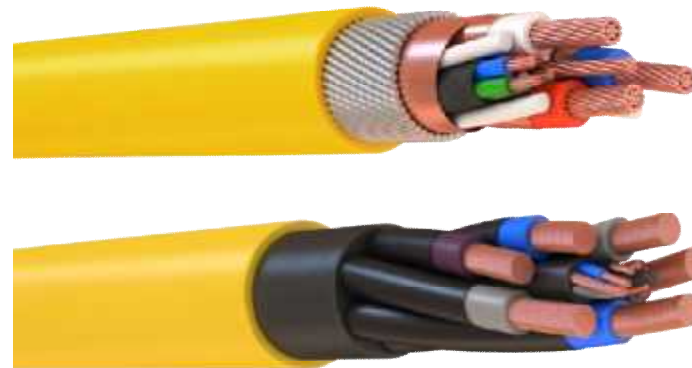
Flexible power cables and wires to 1 kV with
rubber insulation – up to **27 500 km**

Cables lifetime – 4 years
(in the open air);



ESP Cables –
up to **8 000 km**

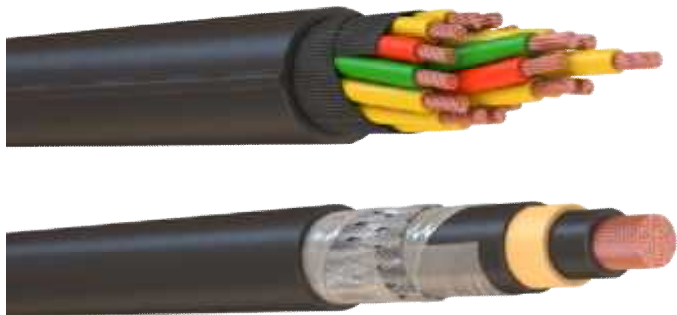
Warranty period –
18 months



Mining and pits cables – up to **1 200 km**

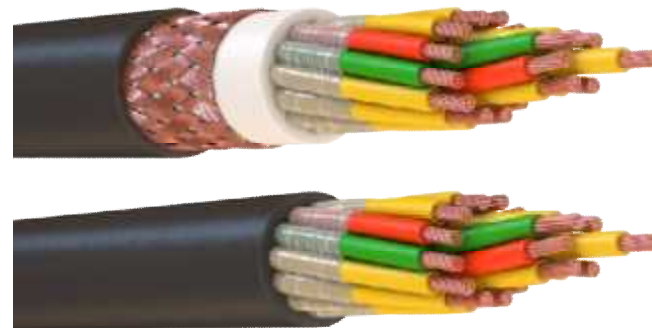
Cables lifetime – 1,5 to 3 years for rubber
insulated cables;
Up to 8 years for PVC-insulated excavator
cables.

Warranty period for rubber insulated cables
– 6 months



Cables and wires for electric transport– up to **850 km**

Cables lifetime – 2,5 to 6 years for sliding joints and to 12 years for fixed current collectors



Shipboard cables – up to **250 km**

Cables lifetime – 25 years

Warranty period – 5 years



Magnet wires, enamel insulated – up to **4 600 MT**

Magnet wires, fiberglass-polyester insulated – up to **1 500 MT**

Magnet wires, enameled with fiberglass-polyester insulation – up to **1 300 MT**

Magnet wires, paper insulated – up to **650 MT**



PVC insulated aircraft cables and wires – up to **19 200 km**

Aircraft cables and wires with film and fluoroplast insulation – up to **4 700 km**

Aircraft, hook-up and other cables and wires – up to **42 000 km**

Cables and wires lifetime – 20 years



For operation in cold climatic zones (at temperatures -60°C) cables are manufactured in frost-resistant version (ХЛ)

For survival under fire conditions cables are manufactured as:

- low smoke- and gas (нг-LS),
- flame-retardant (FR),
- halogen-free (HF),
- low-toxic (LTX).





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CERTIFICATION

Quality mangment system of the company is certified to **ISO 9001:2008**

All cables, wires and conductors with
KAMKABEL trademark comply to Russian
and foreign standards:

- **GOST**

- **TY**, developed by OAO VNIKP

- **TY**, developed by OOO Kamsky cable

- **IEC**

- **DIN VDE**



KEMA TIC 1071-12

TYPE TEST CERTIFICATE OF COMPLETE TYPE TESTS

OBJECT Three-core power cable

TYPE 19(23)3(9) kV, 3 x 400 mm², CuXLPE/CTS/HPVC/SWAF-PVC

Rated voltage, U ₀ /U _m	19(23)3(9) kV	Conductor material	Cu
Conductor cross-section	3 x 400 mm ²	Insulation material	XLPE

MANUFACTURER OOO "Kamkabel", Perm, Russia

CLIENT OOO "Kamkabel", Perm, Russia

TESTED BY KEMA Nederland B.V., Arnhem, The Netherlands

DATE(S) OF TESTS 16 July to 26 September 2012

The object, constructed in accordance with the description, drawings and photographs incorporated in this Certificate, has been subjected to the series of proving tests in accordance with

IEC 60502-2:2005

This Type Test Certificate has been issued by KEMA following exclusively the IEC Guides.

The results are shown in the record of Proving Tests and the oscillograms attached hereto. The values obtained and the general performances are considered to comply with the above standard and to justify the ratings assigned by the manufacturer as listed on page 4.

This Certificate applies only to the object tested. The responsibility for conformity of any object having the same designations with that tested rests with the manufacturer.

This Certificate consists of 38 pages in total.

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KEMA Nederland B.V.
[Signature]
S. A. M. Verhoeven
Director Testing, Inspections & Certification The Netherlands
Arnhem, 16 October 2012

KEMA TIC 1073-12

TYPE TEST CERTIFICATE OF COMPLETE TYPE TESTS

OBJECT Three-core power cable

TYPE 5,35/1(1)12 kV, 3 x 300 mm², CuXLPE/CTS/HPVC/SWAF-PVC

Rated voltage, U ₀ /U _m	5,35/1(1)12 kV	Conductor material	Cu
Conductor cross-section	3 x 300 mm ²	Insulation material	XLPE

MANUFACTURER OOO "Kamkabel", Perm, Russia

CLIENT OOO "Kamkabel", Perm, Russia

TESTED BY KEMA Nederland B.V., Arnhem, The Netherlands

DATE(S) OF TESTS 16 July to 10 October 2012

The object, constructed in accordance with the description, drawings and photographs incorporated in this Certificate, has been subjected to the series of proving tests in accordance with

IEC 60502-2:2005

This Type Test Certificate has been issued by KEMA following exclusively the IEC Guides.

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KEMA Nederland B.V.
[Signature]
S. A. M. Verhoeven
Director Testing, Inspections & Certification The Netherlands
Arnhem, 20 November 2012

VDE Prüf- und Zertifizierungsinstitut

**ZEICHENGENEHMIGUNG
MARKS APPROVAL**

Kamkabel Kabel, Ltd.
Gavinsky str. 105
314030 PERM
RUSSIAN FED.

of drawing, for the product
is authorized to use for their product

Starkstromleitungen für allgemeine Anwendungen
- Asele- und Verteilungsleitungen
mit thermoplastischer PVC-Isolierung
- Cables for general applications
- Single core non-sheathed cables
with thermoplastic PVC insulation

His/her signatured transmittation justifies the
To check status of authorization, please see function

The apply attached links to down table for the refer referred to on page 2 of

<VDE> *[Signature]* </VDE> *[Signature]*

Geprüft und zertifiziert nach
I tested and certified according to

EN 50565-11 (IEC 60502-2:2005) (100%); EN 60502-2:2011

VDE

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