

## Briefing memorandum

Full company's name is **Open Joint Stock Company Mogilevkhimvolokno**

Brief company's name is **ОАО "Mogilevkhimvolokno"**

Legal address: **Republic of Belarus 212035, Mogilev-35**

Web-site: [www.khimvolokno.by](http://www.khimvolokno.by)

State registration data: Open Joint Stock Company is registered by Resolution No. 3-7(certificate No. 700117487) dd. 30.01.2003 in Uniform State Register of Legal Entities and Individual Entrepreneurs issued by Mogilev Region Administration

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### **I. Company's general info**

ОАО "Mogilevkhimvolokno" is a chemical industry company making a part of the Belarusian State Concern for Oil and Chemistry "Belneftekhim".

Open Joint Stock Company Mogilevkhimvolokno is a commercial organization having private form of ownership.

The Company is set up by Order No. 186 dd. 31.12.2002 "Regarding foundation of open joint stock company in the framework of state involvement reduction and state property privatization of Republic Unitary Enterprise "Mogilev Industrial Group "Khimvolokno" and Republic Unitary Subsidiary Enterprise "Hockey Club "Khimvolokno-Mogilev". The first constituent assembly of shareholders took place on the 25<sup>th</sup> September 2003.

Company's authorized fund amounts to 1 391 866 294 000 (one billion three hundred and ninety-one milliard eight hundred and sixty-six million two hundred and ninety-four thousand rubles). The authorized fund is divided into 198 838 042 (one hundred and ninety-eight million eight hundred and thirty-eight thousand forty-two) ordinary shares with nominal value of 7 000 (seven thousand) rubles each. The shares are issued in the form of crediting into an account. The closed joint-stock company's depository is VTB Bank.

#### ОАО "Mogilevkhimvolokno" shareholding structure

Physical party	– 0,0454%
Legal party	– 9,4130%
State committee on property of the Republic of Belarus	– 90,5416%.

#### Company's management:

- General Shareholder Meeting (11 539 shareholders);
- Supervisory Committee (5 members acting as state representatives);
- Board of Directors (12 members);
- General Director.

ОАО "Mogilevkhimvolokno" is the only manufacturer of dimethyl terephthalate, PET chips (including bottle grade chips), polyester fibers and yarns and main supplier of raw materials for light industry in the Republic of Belarus

ОАО "Mogilevkhimvolokno" has the entire infrastructure for the operation of a large chemical-textile production complex as well as skilled personnel and facilities for its training. ОАО "Mogilevkhimvolokno" belongs to city-forming enterprises of Mogilev.

The company is in possession of all the rights appropriate of legal entity.

Form of ownership: private

1965 – Adoption of the resolution regarding the beginning of Company's construction

1970 – 1971 – startup of the first dimethyl terephthalate production line with a capacity of 63 t/year and PE fiber, industrial yarn and filament production line working under license of English company "ICI" with a capacity of 50 thousand t/year.

1976, 1980, and 1982 – startup of three dimethyl terephthalate production lines with a capacity of 240 thousand t/year.

1977 – Startup of polyester fiber production line with a capacity of 88,4 thousand t/year.

1983 – Startup of PET production line with a capacity of 69,8 thousand t/year.

1986 – 1988 – Polyester industrial yarn and filament production with a capacity of 28,45 thousand t/year.

2006 – Startup of polyester substrate for roofing materials production line with a capacity up to 40 mln. m<sup>2</sup>/year.

2007 – Startup of continuous polycondensation line with a capacity of 80 thousand t/year.

2008 – Startup of Energy Technological Complex at Polyester Yarn Factory.

2009 – Startup of Biodiesel Fuel line with a capacity of 300 thousand t/year (1<sup>st</sup> and 2<sup>nd</sup> phases)

2010 – Launching of preform (bottle grade) production line and production line for needle-punched nonwoven materials with a capacity of 5000 t/year.

2011 – Startup of the complete process line for PET waste recycling at Synthetic Fiber Factory.

2012 – Reorganization of OAO "Mogilevkhimvolokno" due to the takeover of OAO "Mogilev Viscose Plant".

2013 – Startup of the plant for fatty acid methyl ester production with a capacity of 50 thousand t/year at Organic Synthesis Factory.

OAO "Mogilevkhimvolokno" is a resident of Free Economic Zone "Mogilev".

### **OAO "Mogilevkhimvolokno" structure.**

At present OAO "Mogilevkhimvolokno" is a complex consisting of four factories:

Organic Synthesis Factory produces:

- Dimethyl terephthalate (DMT),
- Polyethylene terephthalate (PET) – based on DMT and PTA,
- Fatty Acid Methyl Esters (FAME),
- PET-preforms.

Synthetic Fiber Factory produces a wide range of polyester products:

- Polyester fiber and tow,
- Polyester filling,
- Polyester Geotextile fabric,
- Polyester spunbonded fabric for roofing materials,
- Polyester nonwoven fabrics,
- Polyethylene terephthalate strapping band,
- Delivery fire hoses,
- Composite materials.

Polyester Yarn Factory produces a wide range of industrial yarns.

Synthetic Film Factory produces a broad assortment of polymer films based on polyethylene and polypropylene.

**Production capacities in 2013.**

Production line for	unit	Put into operation	Annual average capacity	Utilization %	
1) Synthetic resins and plastics	thous. tons	1982	138,000	90	
2) Polyethylene terephthalate including Polycondensation Plant of Organic Synthesis Factory (PET based on DMT)	thous. tons	1983-1984	271,800	62	
Polycondensation Plant No.2 of Organic Synthesis Factory (PET based on PTA)	thous. tons		85,000	81	
Postpolycondensation Plant	thous. tons		2010	80,000	62
	thous. tons		2003	106,800	46
3) Synthetic fiber and yarns including: Synthetic fiber	thous. tons	1977	104,508	69	
Polyester technical yarns	thous. tons	1986	87,000	64	
Polypropylene yarns	thous. tons	1986	16,900	95	
			0,608	20	
4) Composite materials	thous. tons	2005	0,800	45	
5) Nonwoven materials including: polyester needle-punched substrate for roofing materials	thous. tons	2006	9,900	90	
	thous. tons		5,900	98	
	thous. tons		2011	4,000	79
6) Strapping band	thous. tons	2007	0,600	88	
7) Delivery fire hoses	mln. rm	2007	0,700	33	
8) Fatty Acid Methyl Esters	thous. tons	2013	20,959	51	
9) Diesel fuel with FAME	thous. tons	2010	65,000	100	
10) Preforms	thous. tons	2010-2012	220,800	57	
11) Films	thous. tons	1998	16,580	76	
11.1) Polypropylene films	thous. tons		9,100	80	
11.2) Polyethylene films including: "Kirion" plant	thous. tons	2007	5,480	87	
"Macchi 1" plant	thous. tons		2,100	98	
"Macchi 1" plant	thous. tons		1992	1,280	68
11.3) Polyolefin film	thous. tons	2009	2,100	88	
		2011	2,000	26	
12) Flexographic printed film	thous. tons	2001	2,000	44	
13) Laminated film	thous. tons	2005	0,480	19	
14) Metallized film	thous. tons	2006	0,727	0	

**Advantages of the company:**

Production activity of OAO "Mogilevkhimvolokno" is characterized by the following advantages:

- manufacture of the products meeting the International Standards requirements,
- highly experienced personnel,
- complete production cycle,
- wide range of manufactured products (for various fields of application),
- possibility of manufacturing tailor-made products,

- availability of distribution network abroad (Russian Federation, European Union, Ukraine),
- advantageous geographical location (logistical advantages over the Asian competitors on the main sales markets (Russian Federation, European Union, Ukraine),
- duty free trade within the framework of the Customs Union,
- availability of production infrastructure and utility facilities;
- well-adjusted relationships with the suppliers of raw materials and the consumers of the end products.

#### **Availability of licenses, patents, certificates**

Quality control system of the company is certified for compliance with international standard ISO 9001; Environmental management system complies with the international standards ISO 14000 as well.

Occupational health and safety management system is certified for compliance with OHSAS 18001 standard.

### **II. Financial characteristics of the company's business activity**

Characteristic	2010	2011	2012	2013
Net asset value, mln.US dollars	306	382	298	321
Revenue from sales of goods, works and services, mln.US dollars	670	699	462	630
Total profit, mln. US dollars	4	22	1	1
Profit from sales of goods, works and services, mln.US dollars	12	63	1	9
Net profit, mln.US dollars	3	22	0,004	0,003
Profitability of sold goods, works and services, %	2,1	11,32	0,27	1,7
Debit indebtedness, mln.US dollars	54	25	20	15
Credit indebtedness, mln.US dollars	36	32	32	35
Average salary, US dollars	414,8	413,5	414,4	524,5
US dollar exchange rate	2978,1	4623,47	8335,86	8875,83
US dollar exchange rate as of December, 31	3000	8350	8570	9510

### **III. Generalized range of manufactured products**

A distinctive feature of OAO "Mogilevkhimvolokno" is integration into one complex of plants bound by one production chain starting from raw materials (dimethyl terephthalate, polyethylene terephthalate) production to end products manufacturing.

Range of main products manufactured at OAO "Mogilevkhimvolokno" includes polyethylene terephthalate (PET), fatty acid methyl esters (FAME), PET-preforms, polyester fibers, industrial yarns, polyester nonwoven fabrics including roofing substrates, wide range of polyethylene and polypropylene based polymer films.

Description	Units of measurements	2010	2011	2012	2013	Business-plan 2014
1.Synthetic fiber, incl. bicomponent fiber	t	71174	66424	67258	54955	41646
	t	3402	2991	1459	389	600
2.Textile yarns	t	2	0	0	0	0
3.Industrial yarns	t	16481	18352	16344	16044	16630
4.DMT, total	t	145450	140273	137761	124726	115500
DMT-3	t	10199	0	0	0	0
DMT-4	t	135251	140273	137761	124726	115500
5.PET, total	t	213743	209390	185695	167163	183844
6. Composite materials	t	616	617	609	362	380
7. Polyester substrates for roofing materials	t	5940	6022	6122	5774	5900
	t					
8. Preforms	thou. pcs.	89513	135302	163899	126870	165000
9. Polyols	t	180	416	212	185	400
10. Strapping band	t	290	436	520	529	530
11. Fire hoses	thou.m	175	400	615	229	300
12. Biodiesel fuel	t	415457	299365	60294	302575	320000
13. FAME	t	19310	9553	0	10773	32756
14. Needle-punched nonwoven materials	thou.m <sup>2</sup>	0	12712	16051	19251	22990
15.Rayon yarns	t	1910	2065	399	0	0
16. Na sulfate	t	173	45	0	0	0
17.Polypropylene film	t	9115	8142	8282	7264	5540
18. Recycled chips	t	1944	1772	1763	1261	1082
19.Polyethylene film	t	1752	1690	1508	874	0
20. Coextruded polyethylene film KIRION	t	2296	2484	2479	2061	2100
21. Coextruded polyethylene film MACCHI-2	t	2119	2504	2288	1841	2100
22.Film bags	thou. pcs.	1573	1725	1421	345	0
23. Film with flexographic print	t	1098	1363	1541	885	1500
24. Laminated film	t	144	241	163	91	150
25. Metalized film	t	333	287	66	0	0
26. Polypropylene yarn	t	267	269	423	120	0
27.Packaging fabric	thou.m <sup>2</sup>	2469	3245	3939	1492	0
28. Bag liners	t	288	5751	7144	0	0
29. Polyolefin film	t			381	518	520

#### IV. Investment activity

In the period from 2010 to 2013, the following major investment projects were implemented:

##### **Arrangement of preform production**

Production of preforms for PET-bottles with a volume of 1.0 l, 1.5 l and 2,0 l was mastered.

##### **Line for production of needle-punched nonwoven materials**

Production of new types of nonwoven fabrics was mastered.

##### **Process plant for production of fatty acid methyl ester with capacity of 50 000 tons per year**

State-of-the-art process was introduced for production of fatty acid methyl ester, being used as an additive to diesel fuel, and for production of glycerine.

#### **Development Strategy.**

The company's development strategy for the period 2014-2017 comprises implementation of investment projects aimed at optimization of the infrastructure and deeper processing of polyester feedstock into the final products with high added value, increasing efficiency of business and financial performance of the company.

OAo "Mogilevkhimvolokno" is looking for investors that are interested to take part in implementation of the investment projects, and is ready to consider any suggestions regarding:

- establishment of joint ventures;
- renting out production areas;
- feedstock supply.

In the period 2014-2017, the following investment projects are to be implemented:

1. Arrangement of production of multiply twisted yarns.
2. Line for production of nonwoven fabrics for wipes.
3. Line No.2 for production of nonwoven fabrics for roofing materials.

#### **Information about projects to be implemented.**

##### **1. Arrangement of production of multiply twisted yarns**

Project objective – the project provides for purchasing and installation of two-for-one twisting machines and assembly winders. Purchase of the equipment will allow production of yarns with wide range of plies (up to 6) and twists.

Project implies purchasing and installation of two-for-one twisting machines and assembly winders in order to arrange production of multiply twisted yarns for use in production of reinforced hoses for shale oil and gas extraction industry.

##### Project status

- ✓ business plan developed;
- ✓ as a result of tendering procedures, suppliers of two-for-one twisting machines and assembly winders were selected;
- ✓ contracts concluded for equipment supply;
- ✓ financing secured;
- ✓ design and estimate documentation in development.

##### **2. Line for production of nonwoven fabrics for wipes.**

Project objective – arrangement of production of industrial and household nonwoven wipes.

Project implies purchasing complete equipment for production of nonwoven wipes. Viscose and polyester fiber is to be used as feedstock in the production process. Viscose fiber is planned to be imported, polyester fiber is of own production.

Project status

- ✓ pre-investment study on the project is carried out;
- ✓ developed business plan;
- ✓ conducted marketing research of equipment market;
- ✓ negotiations are carried out with equipment manufacturers.

**3. Line No 2 for production of non-woven fabric for roofing materials.**

Project objective – deeper feedstock processing, production increase of polyester substrate for roofing materials, gaining new sales markets of non-woven materials due to expansion of assortment range of polyester substrate.

Project implies is to purchase complete equipment for production of polyester substrate for roofing materials. The peculiar feature of a new line in comparison with an existing one is production of non-woven fabric of “light” assortment and possibility of glass filament reinforcement.

PET chips of own production can be used as the feedstock. The equipment for production of polyester substrate shall allow producing fabric of surface density from 90 to 250g/m<sup>2</sup>

Project status

- ✓ developed business plan;
- ✓ conducted marketing research of equipment market;
- ✓ developed technical assignment for purchase of equipment;
- ✓ announced open tender for purchase of complete equipment.

**Investment projects planned for implementation in 2014 - 2017**

Name of a project	Cost of a project, mln. US dollars	Subject matter of the project	Expected effect/ performance indicators of a project
Setup of cabled yarn production.	1,8	Setup of polyester industrial filament yarn production of various number of plies (up to 6) and twists.	Sales revenue– 5,5 mln.US dollars. Net profit – 0,6 mln.US dollars; Net income – 0,7 mln.US dollars. Simple payback period starting from the implementation of the project – 5,9 years. Dynamic payback period starting from the implementation of the project – 6,8 years (acc. to business plan).
Line for production of non-woven fabric for wipes.	15,5	Setup of non-woven fabric production for wipes for industrial and household purposes	Production output – 5,5 thous. tons per year Sales revenue – 19,3 mln.US dollars. Net profit – 2,8 mln.US dollars; Net income – 3,9 mln.US dollars. Simple payback period starting from the implementation of the project – 7,4 years. Dynamic payback period starting from the implementation of the project – 10,3 years (acc. to business plan).
Line No 2 for production of non-woven fabric for roofing material.	37,6	Deeper feedstock processing, production increase of polyester substrate for roofing materials, expansion of assortment range of polyester substrate.	Production output -10 thous. tons per year Sales revenue – mln.US dollars. Net income – 3,6 mln.US dollars. Simple payback period starting from the implementation of the project – 7,7 years. Dynamic payback period starting from the implementation of the project – 10,8 years (acc. to business plan).



**V. Structure of personnel as of 01.01.2014:**

	Age							Total number
	-25	25-35	35-40	40-45	45-50	50-55	55+	
Number of personnel incl.	223	1 220	808	971	931	1 322	1 695	7 170
- number of personnel with higher education	19	547	330	229	164	209	244	1 742
- number of personnel with specialized secondary education	38	208	121	217	243	334	300	1 461
- number of personnel with vocational-oriented education	135	330	375	392	393	414	519	2 458
- number of personnel with secondary education	31	127	75	123	129	352	594	1 431
- number of personnel with basic education	-	8	7	10	2	13	38	78

Number of personnel:	7170
- number of administrative personnel	488
- number of operating personnel	6631
incl. number of working personnel	1549

**VI. Structure of goods sales:**

Structure (%)	2010	2011	2012	2013
Structure of total goods sales:	100,0%	100,0%	100,0%	100,0%
Domestic market	67,9%	69,4%	48,4%	67,7%
External market	32,1%	30,6%	51,6%	32,3%

Major sales markets of our production are Russian Federation, Ukraine, Poland, Turkey, Slovakia, Germany, Italy, France, Romania, Baltic States.

**VII. Data on sites of land, capital structures (buildings and constructions).**

Total territory of OAO "Mogilevkhimvolokno" is 995,0896 hectares.

Total area of capital structures (buildings and constructions) comprises 1 444,636 thous. m<sup>2</sup>.

**VIII. Data on machinery and equipment**

DMT production plants were built within the Company in 1970 - 1982 years.

PET synthesis from DMT and MEG is conducted at 4 lines with capacity of 20 thous. tons per year consisting of 7 reactors connected in series. Technology and equipment are not state-of-the art and worn-out.

Continuous fiber spinning with PET melt feeding from polycondensation reactors to spinning machines.

As-spun fiber is transported in containers by lift trucks to finishing stage. Fiber is finished at finishing units. The technology is based on one-stage drawing. Drawing rate is up to 140 m/min.

Industrial yarn is produced using two-stage method of liquid phase postpolycondensation at equipment put into operation in 1985 using technology of company Hoechst. The process is unprofitable because of many operating steps. Industrial yarn production plant consists of 8 lines for production of spun yarn, 11 finishing units. Spinning rate is up to 1000 m/min. Yarn drawing is made at finishing units heated by high-pressure steam of 50 atm with speed up to 200 m/min. Total capacity of existing plant for production of industrial yarn is 16 thous. tons per year. Process control system is out of date.

State-of-the art plants for production of PET, non-woven material, bottle preforms run at the company. State-of-the art plant for production of fatty acid methyl esters with capacity of 50000 tons per year was put into production in 2013.