CATALOGUE

\_ PRODUCT





## ING. PAVOL KONEČNÝ I CEO

After the experience of a staff member I came to the conclusion that this is the appropriate moment to let fully develop my ideas and intentions and set up a company PROMET SLOVAKIA, s. r. o.

Business start-up is always difficult, capital and personnel support was my co-founder, current PROMET CZECH, s. r. o.

However, space for full self-realization and use of my knowledge of metallurgy and foundry, which I gradually took first as a laborer in the electric arc furnace,

then VŠB University of Ostrava student, Faculty of Economics Management metallurgy, and later various positions in the manufacturing ferroalloy plant to the sales director for markets of the Czech Republic and Slovakia was formed.

Over time our work team has grown, with the regional scope and range of commodities that we are able to deliver.

At the moment I can honestly say, with pride, that this was the correct decision. I look forward to working with our partners and the challenges of the future.

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Your satisfaction, our future. Your future, our perfection.

Ing. Pavol Konečný I CEO



We contribute to creating your values

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# Pig iron

Pig iron is produced in a specialised blast furnace. The raw materials used include ore, sinter, coke, lime and various aggregates. To ensure that the production process maintains a high and stable level of quality, these materials have to be metered precisely and supplied to the blast furnace in batches. Pig iron is the basic raw material for steel and cast iron production. Pig iron is delivered in ingots (also known as pigs) and the maximum weight of one pig is 25 kg.

Based on both the composition and subsequent processing, pig iron is classified as follows:

- A. Foundry pig iron designed for foundries to manufacture castings of gray cast iron
- B. Foundry pig iron of spheroidal graphite designed for the manufacture of ductile iron
- C. Steelmaking pig iron processed by different compaction methods of steel



### FOUNDRY PIG IRON | Fe PIG P1 Si (Hematite)

Туре	Si %	Mn %	P % max	S % max	Cr % max
Fe PIG P1 Si	1.21 - 1.50	0.4 - 1.0	0.12	0.04	0.10
Fe PIG P1 Si	1.51 - 2.00	0.4 - 1.0	0.12	0.04	0.10
Fe PIG P1 Si	2.01 - 2.50	0.4 - 1.0	0.12	0.04	0.10
Fe PIG P1 Si	2.01 - 2.50	0.4 - 1.0	0.15	0.04	0.10
Fe PIG P1 Si	2.51 - 3.00	0.4 - 1.0	0.12	0.04	0.10
Fe PIG P1 Si	2.51 - 3.00	0.4 - 1.0	0.15	0.04	0.10
Fe PIG P1 Si	3.01 - 3.50	0.4 - 1.0	0.12	0.04	0.10

### FOUNDRY PIG IRON OF SPHEROIDAL GRAPHITE | Fe PIG NOD (Nodular)

Туре	Si % max	Mn % max	P % max	S % max	Cr % max
Fe PIG NOD	1.2	0.10	0.08	0.025	0.10
Fe PIG NOD	1.2	0.10	0.08	0.02	0.10
Fe PIG NOD	1.2	0.10	0.08	0.015	0.10

Nodular pig iron is stored in isolated stocks to ensure some customer's demand for warranty of following items: Mn max 0,05%, P max 0,05% a S max 0,015%

#### STEELMAKING PIG IRON | Fe PIG P2

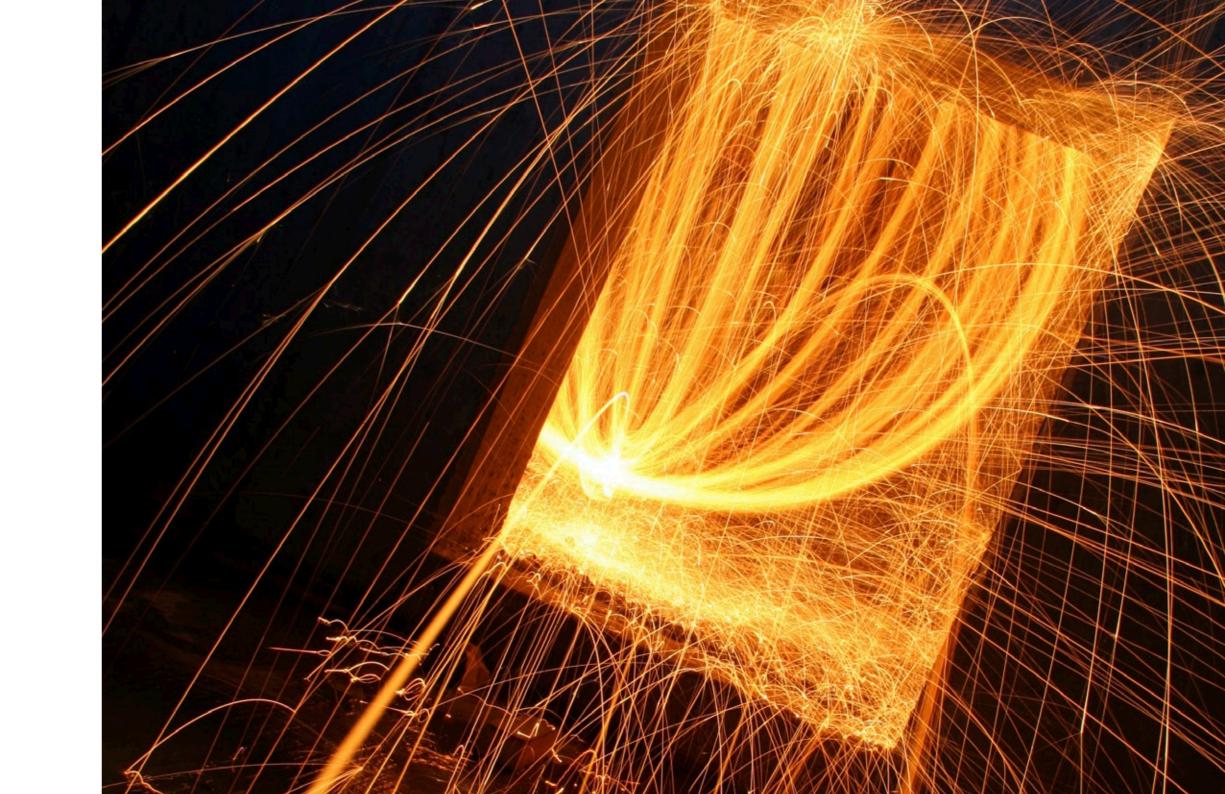
Туре	Si %	Mn %	P % max	S % max	Cr % max
Fe PIG P2	0.30 - 1.00	0.40 - 1.00	0.25	0.03	0.10

Pig iron is supplied in ignots of 25 kg weight. Form and weight of ignots is given by the type of casting machine that is used for pig iron strengthening

# Ferroalloys

Ferroalloys are iron alloys containing chromium, manganese, molybdenum, silicon, titanium, tungsten, vanadium and other elements in varying proportions.

Ferroalloys are added to steel during the manufacturing process to achieve the desired degree of corrosion resistance, heat resistance, tensile strength, yield strength and other qualities. They are produced in electric arc furnaces.



#### FERROCHROMIUM

Туре	Grain size	Cr min %	C max %	Si max %	Al max %	P max %	S max %
FeCrLC (006)	10 - 50 mm	65	0.06	1.5	-	0.03	0.03
FeCrLC (010)	10 - 50 mm	65	0.10	1.5	-	0.03	0.03
FeCrLC (015)	10 - 50 mm	65	0.15	1.5	-	0.03	0.03
FeCrLC (025)	10 - 50 mm	65	0.25	1.5	-	0.03	0.03
FeCrMC	10 - 50 mm	65	1.5	1.5	-	0.03	0.03
FeCrHC	10 - 50 mm	65	6 - 9	1.5	-	0.035	0.05

### FERROMOLYBDENUM

Туре	Grain size	Mo min %	C max %	Si max %	Cu max %	P max %	S max %
FeMo 60 %	10 - 50 mm	60	0.15	1.5	0.5	0.05	0.10
FeMo 65 %	10 - 50 mm	65	0.15	1.0	0.5	0.05	0.10

#### **FERROVANADIUM**

Type	Grain size	V min %	Al max %	Si max %	C max %	P max %	S max %
FeV 80 %	10-50 mm	78	1,5	1,5	0,15	0,05	0,05

The above mentioned chemical composition and sizing are informative and may be modified according to the customer's requirements.

#### **FERROSILICON**

Туре	Grain size	Si min %	Mn max %	C max %	Al max %	P max %	S max %
FeSi 45 %	10 - 50 mm	44	1.5	0.2	2	0.05	0.05
FeSi 65 %	10 - 50 mm	63	0.5	0.2	2	0.05	0.05
FeSi 75 %	10 - 50 mm	74	0.5	0.2	1.5	0.05	0.05

#### **FERROMANGANESE**

Туре	Grain size	Mn min %	SI max %	C %	P max %	S max %
FeMnC (HC)	10 - 50 mm	75	1.5	6 - 8	0.25	0.03
FeMnC (HC)	10 - 50 mm	75	1.5	6 - 8	0.35	0.03
FeMn (MC)	10 - 50 mm	78	1.5	max 1.5	0.30	0.03

#### FERROSILICOMANGANESE

Туре	Grain size	Mn min %	SI %	C max %	P max %	S max %	S max %
FeSiMn	10 - 50 mm	65	16 - 20	2	0.2 (0.35)	0.03	0.05

#### **FERROPHOSPHORUS**

Туре	Grain size	P min %	Si max %	Ti max %	C max %	Mn max %	S max %
FeP	10 - 50 mm	23 (25)	2.0 (1.0)	0.5	1.0	2.0 (1.0)	0.50
FeP	10 - 50 mm	23 (25)	2.0 (1,0)	1.0	1.0	2.0 (1.0)	0.50
FeP	10 - 50 mm	23 (25)	2.0 (1.0)	1.0	1.0	2.0 (1.0)	0.50

The above mentioned chemical composition and sizing are informative and may be modified according to the customer's requirements.

# Coke

Coke represents valuable solid fuel made from coal that is needed for pig iron production and as well as in subsequent manufacturing procedures of its treatment.

Based on both the composition and subsequent processing, coke is classified as follows:

#### A. Foundry coke

This is a special coke that is used in furnaces to produce cast and ductile iron products. It is a source of heat and also helps maintain the required carbon content of the metal product. Foundry coke production requires lower temperatures and longer times than blast furnace coke. Foundry coke is used primarily in the production of cast iron in cupola furnaces. It is one of the most important products of coke-oven plants.

#### B. Coke breeze

It is a by-product of coke manufacturing. Coke breeze is the residue from the screening of heat-treated coke. The particle size is less than 10mm. Coke breze is used as a component of burdening for blast furnacee.



#### **FOUNDRY COKE**

Parameters	SLK I	SLK I	SLK II		
Grain size			+80 mm	+100 mm	60 - 80 mm
Water	W	max %	4	3	4
Ash	Ad	max %	10.5	10.5	11
Sulphur	Sd	max %	0.6	0.6	0.6
Volatile Substances	Vdaf	priem. %	1	1	1
Calorific Value	Qf	MJ/kg	28.5	28.5	28.25
M 80		min. %	-	70	-
M 40		min. %	80	80	-
M 10		%	8	8	-
Undersize		max %	10	15	10

## COKE BREEZE

		Chemical Composition (%)							
Туре	Grain size (mm)	Calorific value Qr <sub>i</sub> min MJ/kg	Sulphur content S <sup>d</sup> t max %	Water content W' <sub>t</sub> max %	Ash content Admax %	Volatile substances V <sup>daf</sup> max %			
Coke Breeze	0 - 10	23.00	0.55	21.50	12.50	2.50			

# Inoculants & nodulisers

Inoculants are FeSi based alloys which contain carefully balanced amounts of active elements designed to control the microstructure and mechanical properties of cast irons.

Elkem high quality inoculants are specially designed to serve most aspects of grey and ductile iron production.



We contribute to creating your values

### INOCULANTS

Туре	Grain size	Si %	Ca %	Ba %	Al %
Foundrisil inoculant	1 - 6 mm	73 - 78	0.75 - 1.25	0.75 - 1.25	0.75 - 1.25

#### **NODULISERS**

	Grain size	Si %	Mg %	RE %	Ca %	Al %
Elmag 4810	3 - 25 mm	44 - 48	4.5 - 5.0	0.8 - 1.0	0.8 - 1.0	0.5 - 1.0
Elmag 4911	3 - 25 mm	44 - 48	4.6 - 5.1	1.85 - 2.15	1.55 - 1.95	max 0.8
Elmag 5800	1 - 12 mm	44 - 48	5.55 - 6.15	0.85 - 1.15	0.8 - 1.2	max 1.0
Elmag 6000	1 - 12 mm	44 - 48	5.5 - 6.5	0.4 - 0.6	0.5 - 1.0	max 1.0
Elmag 6001	1 - 12 mm	44 - 48	5.5 - 6.5	max 0.1	0.3 - 0.5	max 0.7
Elmag 6039	3 - 25 mm	44 - 48	5.75 - 6.25	max 0.1	1,5 - 2.0	max 0.8
Lamet 5836	1 - 12 mm	44 - 48	5.55 - 6.15	max 0.1	0.8 - 1.2	0.4 - 1.0

The above mentioned chemical composition and sizing are informative and may be modified according to the customer's requirements.

# Others

Like other commodities we offer:

- A. Anthracite
- B. Galvanized sheet packages
- C. Aluminium
- D. Metallurgical grade fluorspar
- E. Nickel

If you are interested in receiving more detailed information, please contact us.





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