

Brown fused aluminium oxide

BFA catalog

Brown fused aluminium is used in:



Abrasives



Technical Ceramics



Refractory



Metallurgy



Automotive



Zaporizhzhia Abrasive Plant PJSC
Ukraine, 2023
Oleksiya Porady str, 44,
Zaporizhzhia, 69014, Ukraine



abrasive.zp.ua



YouTube Channel
youtu.be/Z_IXTEB-e4s

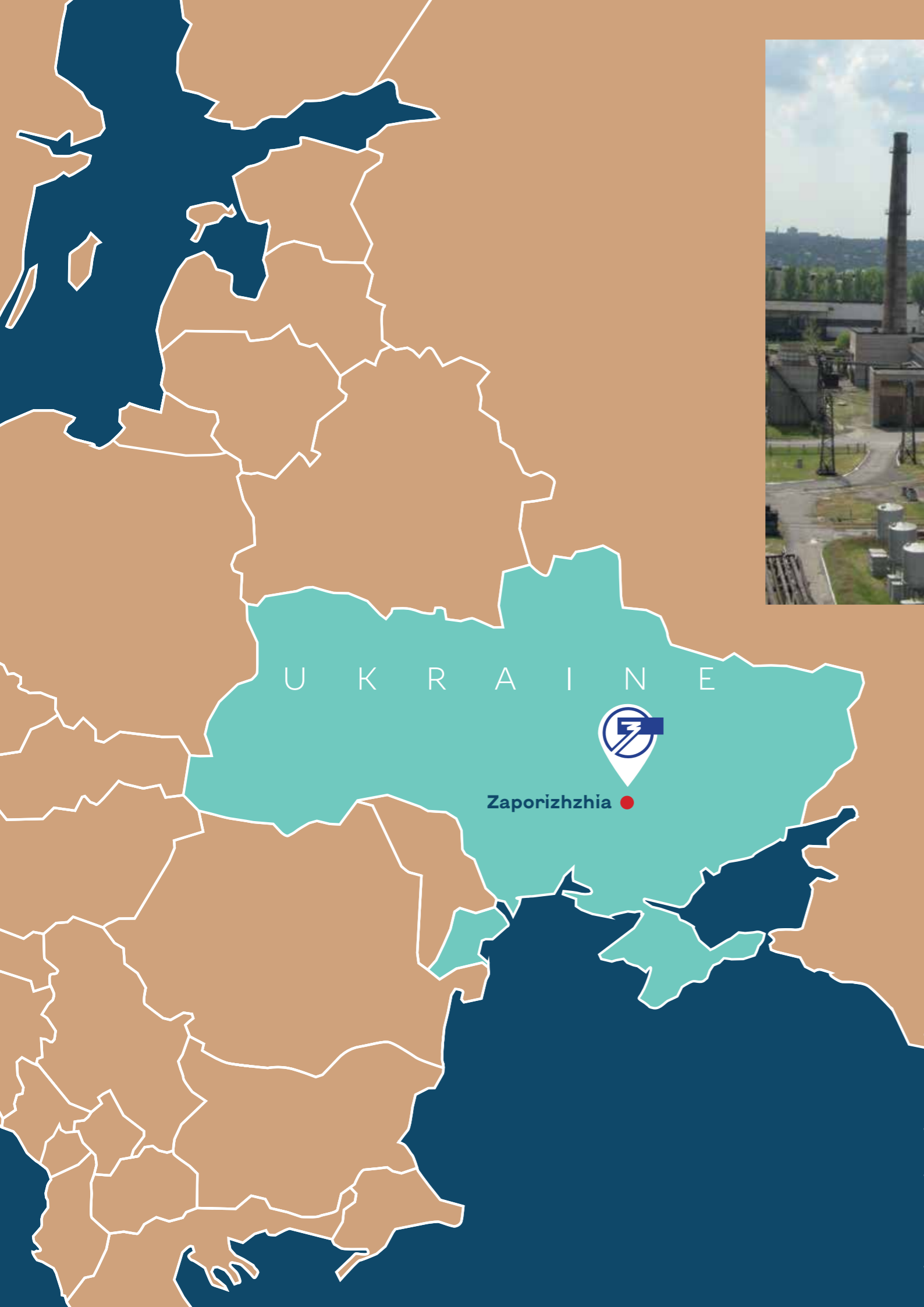


LinkedIn
linkedin.com/company/pjsc-zaporizhzhia-abrasive-plant/



ZAPORIZHZHIA ABRASIVE PLANT

PJSC



Zaporizhzhia Abrasive Plant PJSC is a leading Ukrainian manufacturer of abrasive materials and grinding wheels in Eastern Europe.

The company was founded in 1939 and has since then been a trusted supplier of high-quality abrasive products to customers all over the world.

Our production facilities are located in Zaporizhzhia. The company's product line includes a wide range of abrasive materials, such as silicon carbide, brown fused aluminium oxide, boron nitride, and boron carbide, as well as grinding wheels of various types and sizes.

Zaporizhzhia Abrasive Plant PJSC has a solid commitment to quality and customer satisfaction. The company's products are manufactured using the latest technology and undergo rigorous quality control procedures to ensure they meet the highest standards. Our plant confirms the achieved standards by ISO 9001 certificate of conformity.

The company's customer base includes various industries, such as automotive, aerospace, construction, metalworking, defense and security.

Zaporizhzhia Abrasive Plant PJSC is known for its flexibility and ability to customize its products to meet each & every customer's needs.

Brown fused aluminium BFA oxide

Zaporizhzhia Abrasive Plant PJSC is the leading manufacturer of abrasive products in Eastern Europe. Based on long time experience and industrial expertise, we are delighted to provide a wide range of high-quality products and excellent services.

Brown fused aluminium is a tough, hard, and chemically inert material with high thermal conductivity, making it ideal for use in a variety of industrial applications.

One of the primary uses of brown fused aluminium is in abrasive applications. It is commonly used as a blasting media for surface preparation, cleaning, and finishing of metals and other surfaces. Its high hardness and toughness make it ideal for use in grinding wheels, cutting tools, and abrasive papers and cloths.

In addition to its abrasive properties, brown fused aluminium is also used as a refractory material due to its high melting point and resistance to thermal shock. It is used in the production of refractory bricks and other materials used in high-temperature applications such as kilns, furnaces, and boilers.

Brown fused aluminium is also used as a filler material in the manufacture of plastics and composites, as well as in the production of advanced ceramics. It is an important material in the aerospace, defense, and automotive industries, where its strength, durability, and thermal properties are highly valued.

Zaporizhzhia Abrasive Plant produces the BFA grinding materials of marks 14A, 13A of the special grain composition:

with **F** indexes – for free grinding with unbonded grains and abrasive tools of fixed geometric shape manufacturing;

with **P** indexes – for the abrasive tools on the flexible base (coated abrasives) manufacturing; as well as the fractions of macro and microgrits with a grain size of 6 mm to 0.003 mm.



The piece
of Electrocorundum

It takes 5-7 hours to produce
20 tonnes heavy ingot
of electrocorundum.

The grinding materials of the brown fused aluminium oxide chemical constitution

Mark	Grit	Mass share, %				Test grit
		Al ₂ O ₃ not less	Fe ₂ O ₃ not more	TiO ₂ not less	CaO not more	
14A	F12-F30	94,0	0,6			F20
	P12-P30					P20
	F36-F80					F60
	P36-P80	94,5	0,5			P60
	F90-F180					F120
	P100-P220	93,0	0,7			P150
	F220					F220
	F230-F280	96,0	0,4	1,8		F280
	F320-F600					F600
	F800-F1000	94,0				F1000
	F1200					F1200
	P240-P360	95,0	0,5			P320
	P400-P2500					P1200
	F12-F90	94,0				F40
F100-F220	F150					
F240	F240					
13A		*	1,3			

* is determined by the customer's request

Fused aluminium oxide grinding micropowders

In loose-form and pastes these materials are advantageously used for grinding and polishing of metallic and glass parts, as far as for the clock-parts finishing in the clock industry.

Grit designation	Cutting ability, g/min, not less	Grit designation	Cutting ability, g/min, not less
F230	0,048	P240	0,051
F240	0,045	P280	0,047
F280	0,045	P320	0,045
F320	0,034	P360	0,045
F360	0,026	P400	0,045
F400	0,026	P500	0,035
F500	0,020	P600	0,030
F600	0,014	P800	0,026
F800	0,010	P1000	0,020
F1000	0,007	P1200	0,014
F1200	0,004	P1500-P2500	0,012





The BFAO bulk density of grinding materials

Grit	Bulk density, g / sm ³ , not less
F12, P12	1,88-2,07
F14	1,86-2,05
F16, P16	1,84-2,03
F20, P20	1,83-2,02
F22	1,82-2,01; 1,82-1,92*
F24, P24	1,80-2,00; 1,80-1,90*
F30, P30	1,78-1,98; 1,78-1,88*
F36, P36	1,76-1,96; 1,76-1,86*
F40, P40	1,74-1,94; 1,72-1,82*
F46	1,73-1,93; 1,70-1,80*
F54, P50	1,73-1,91; 1,67-1,77*
F60, P60	1,73-1,91; 1,63-1,73*
F70	1,72-1,88; 1,58-1,68*
F80, P80	1,70-1,86; 1,56-1,76*
F90, P100	1,68-1,84; 1,53-1,63*
F100, P120	1,66-1,82; 1,53-1,63*
F120, P150	1,64-1,80; 1,51-1,61*
F150, P180	1,64-1,80; 1,49-1,59*
F180, P220	1,58-1,74; 1,47-1,57*
F220	1,58-1,74; 1,45-1,55*
F240	1,54-1,82; 1,42-1,59*

* Grinding material is made at the request of the consumer by grinding in roller mills

Mass share of magnetic material

Material kind	Mark	Grit	Mass share, % not more
Regular fused aluminium oxide	14A	P12-P220	0,2
	14A	F12-F220	0,2
	13A	F12-F240	0,8

Destroying and abrasive ability of grinding materials

Indicator	Grit	Value of indicator for marks 14A, 13A	Test grit
Destroying, % not more	F12-F30	52	F14
	P12-P30		P16
	F36-F80		F60
	P36-F80		P60
Abrasiveness, g not less	F90-F150	0,05	F150
	P100-P180		P180
	F180-F220		F180
	P220	P220	
	F240	0,04	F240



BROWN FUSED ALUMINUM OXIDE
for Abrasives, Shot Blasting
Our Type: 14A F14
Chemical Analysis (typical):

Al ₂ O ₃	TiO ₂	Fe ₂ O ₃	CaO
94% min	1.8% min	0.6% max	0.8% max