

ZHENGZHOU HAIXU ABRASIVES CO.,LTD

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HAIXU ABRASIVES

TECHNICAL DATA SHEET

PRODUCT: Pink fused alumina

Pink fused alumina Brief introduction

Pink Fused Alumina, also called Pink Fused Aluminum Oxide, Chromium Aluminum Oxide, or ruby fused alumina, abbreviated as "PA". It is a kind of artificial corundum produced by adding chromium oxide to high purity aluminum oxide during the fusion process to get a pink color alumina. The amount of chromium oxide added affects the color of the final product, as well as the toughness of the grain. With increased additions of Cr_2O_3 to Al_2O_3 , toughness and self-sharpening ability get increased and friability get decreased comparing with white alumina. So it can well balance the sharpness and life time with applications.

Pink fused alumina chemical & physical properties

CHEMICAL ANALYSIS				
Item/ chemical composition		F12 ~ F80	F90 ~ F150	F180 ~ F220
Low Chromium	Al_2O_3	$\geq 98.5\%$	$\geq 98.5\%$	$\geq 98.0\%$
	Cr_2O_3	0.20-0.45%	0.20-0.45%	0.20-0.45%
	Na_2O	$\leq 0.50\%$	$\leq 0.55\%$	$\leq 0.60\%$
Medium Chromium	Al_2O_3	$\geq 98.2\%$	$\geq 98.2\%$	$\geq 97.8\%$
	Cr_2O_3	0.45-1.0%	0.45-1.0%	0.45-1.0%
	Na_2O	$\leq 0.55\%$	$\leq 0.60\%$	$\leq 0.70\%$
High Chromium	Al_2O_3	$\geq 97.4\%$	$\geq 97\%$	$\geq 96.5\%$
	Cr_2O_3	1.0-2.0%	1.0-2.0%	1.0-2.0%
	Na_2O	$\leq 0.55\%$	$\leq 0.60\%$	$\leq 0.70\%$
TYPICAL PHYSICAL PROPERTIES				
Basic minerals:		$\alpha\text{-Al}_2\text{O}_3$		
Crystal Size:		600-800 μm		
Hardness:		Mohs:9		
Knoop hardness:		2200-2300 kg/cm^3		
Melting Point:		2050 $^{\circ}\text{C}$		
Specific Gravity:		3.9-4.1 g/cm^3		
Bulk density(LPD):		1.40-1.91 g/cm^3		
Color:		Pink		
Particle shape:		Angular		

The content of Magnetic substance:

Grit	Low Chromium	Medium Chromium	High Chromium
F12-F30	0.0040	0.0050	0.0060
F36-F60	0.0036	0.0045	0.0055
F70-F120	0.0032	0.0040	0.0050
F150-F220	0.0028	0.0036	0.0040

Applications

1. Precision bonded abrasive tools such as Super-thin cutting disc, Cut off wheel, Grinding Wheel.
2. Ceramic grinding wheel such as Crankshaft Grinding Wheel, bowl grinding wheel, Cup grinding wheel, Mounted Points, Vitrified Abrasive tools.
3. Coated Abrasive tools such as Sanding paper, Polishing Wheel.
4. High quality Refractory bricks.
5. Sandblasting, rust removal with aggressive blasting is required.
6. Lapping, polishing for extremely hard materials.
7. Technical Ceramics.

Typical Size

F Grit Size	Mean diameter in um	Bulk Density(LPD) in g/cm ³	
		Medium Chrome	High Chrome
F14	1470	1.61-1.75	/
F16	1230	1.61-1.75	/
F20	1040	1.64-1.80	/
F24	745	1.64-1.83	1.73-1.84
F30	625	1.62-1.78	1.73-1.86
F36	525	1.62-1.84	1.72-1.84
F40	438	1.65-1.82	1.72-1.85
F46	370	1.73-1.86	1.73-1.86
F54	310	1.64-1.75	1.68-1.75
F60	260	1.62-1.76	1.63-1.75
F70	218	1.58-1.66	1.58-1.67
F80	185	1.58-1.68	1.55-1.63
F90	154	1.54-1.62	1.52-1.60
F100	129	1.52-1.60	1.50-1.60
F120	109	1.52-1.60	1.46-1.56
F150	82	1.39-1.50	1.39-1.50
F180	69	1.38-1.48	1.38-1.48
F220	58	1.36-1.46	1.36-1.46

F-Microgrits Powder Micron Sizes	
Grit designation	Mean grain size ds50-value in µm
F 230	53.0 ± 3
F 240	44.5 ± 2

F 280	36.5 ± 1.5
F 320	29.2 ± 1.5
F 360	22.8 ± 1.5
F 400	17.3 ± 1
F 500	12.8 ± 1
F 600	9.3 ± 1
F 800	6.5 ± 1
F 1000	4.5 ± 0.8
F 1200	3.0 ± 0.5

SECTION SAND AND FINE POWDER										
Size	Unit	Certified Value		Typical Value						
8-5mm	mm	+8.00	-4.00	+9.52	+8.00	+6.70	+5.60	+4.75	-4.00	-
	%	5	5	0	0-5	35-55	75-95	90-100	0-5	
6-3mm	mm	+5.60	-2.80	+8.00	+6.70	+5.60	+4.75	+3.35	+2.80	-2.80
	%	40max	10max	0	0-5	15-35	40-65	75-95	90-100	0-10
5-3mm	mm	+4.75	-2.80	+5.6	+4.75	+3.35	+2.80	-2.80		
	%	10max	10max	0	0-10	60-80	90-100	0-10		
3-1mm	mm	+2.80	-1.0	+4.75	+3.35	+2.80	+2.00	+1.18	+1.00	-1.00
	%	10max	10max	0	0-5	1-10	30-50	70-90	90-100	0-10
1-0mm	mm	+1.00	-0.212	+1.18	+1.00	+0.50	+0.212	-0.212		
	%	5max	35max	0	0-5	30-50	65-85	0-35		
100mesh	mm	+0.15	-	+0.200	+0.150	-0.150				
	%	5max	-	0	0-5	95-100				
200mesh	mm	+0.075	-	+0.100	+0.075	-0.075				
	%	5max	-	0	0-5	95-100				
325mesh	mm	+0.045	-	+0.075	+0.045	-0.045				
	%	5max	-	0	0-5	95-100				

Tips

The shown values are typical characteristics of the material and shall not be used to prepare specifications. They are submitted to tolerances of the production and meet the present standard of technique. We reserve our right for changes within the scope of technical progress or internal improvement.

郑州市海旭磨料有限公司
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