



کائولین و خاک های نسوز خراسان

Khorasan Kaolin Company

Extraction & Processing of Mineral Materials

PRODUCT CODE		RAW MATERIAL						
		RJ	KNA	KST	KH2UP	KH22F	KHP	KHK1N
CHEMICAL ANALYSIS (%)	SiO ₂	69±1	73±1	72±1	78±1	71±1	77±1	63±1
	Al ₂ O ₃	20±1	14±1	14±1	15±1	20±1	16±1	18±1
	Fe ₂ O ₃	2.5±0.5	0.9±0.2	0.4±0.1	0.2±0.02	0.9±0.1	0.3±0.05	2.2±0.2
	TiO ₂	1.2±0.1	0.35±0.03	0.22±0.03	0.5±0.05	0.5±0.05	0.5±0.05	0.7±0.1
	CaO	0.3±0.05	0.8±0.1	2±0.5	0.3±0.03	0.35±0.03	0.3±0.03	3±0.5
	MgO	0.1±0.01	2.2±0.3	0.1±0.01	0.2±0.02	0.25±0.02	0.2±0.02	0.7±0.1
	K ₂ O	0.3±0.1	2±0.3	5.5±0.5	0.5±0.1	3.5±0.5	0.7±0.2	4±0.5
	Na ₂ O	0.3±0.1	3±0.3	3.5±0.5	0.3±0.03	0.4±0.05	0.3±0.03	2±0.3
	SO ₃	Trace	Trace	Trace	Trace	Trace	Trace	Trace
	L.O.I	6±0.5	3±0.5	1.5±0.5	4±0.5	3±0.5	4±0.5	6±0.5
PARTICLE SIZE (%)	Lump	<30 Cm	<30 Cm	<30 Cm	0-20 cm	0-15 cm	0-10 mm	0-10 cm
PHYSICAL PROPERTIES	MOR (Kg/cm ²)	15±2	14±2	6±2	5±2	12±2	35±5	50±5
	Peff.Plasticity	-	-	-	25±1	26±1	27	32±1
	Moisture (%)	3±2	3±2	3±2	5±2	5±2	3±2	5±2
	Physical form	Lump	Lump	Lump	Lump	Lump	Crushed	Lump
	Packaging	Bulk	Bulk	Bulk	Bulk	Bulk	Bulk	Bulk
FIRED PROPERTIES (1200 °C for 20 min)	L (Lightness Darkness)				96±0.5		91±1	
	a (+ Red, - Green)	Cream	Light Brown	Light Gray	0.1±0.01	Cream	0.8±0.1	Brown
	b (+Yellow, - Blue)				3.5±0.2		5.5±0.5	
	Total Contraction (%)	1.4±0.3	6±1	12±1	0.3±0.1	8±0.5	0.6±0.1	8±0.5
CUSTOMERS APPLICATIONS	Water Absorption (%)	10±1	0	0	18±1	2±0.5	15±1	2±0.5
	Tile - Body	*	*	*	*	*	*	*
	Porcelain Tile - Body	*	*	*	*	*	*	*
	Bricks				*	*	*	*

WHITE BENTONITE									
Chemical Analysis					Physical Properties				
Parameter	KHK2S	Unit			Parameter	KHK2S		Unit	
SiO ₂	76±1	%			Moisture	8±2		%	
Al ₂ O ₃	13±1	%			Water Absorption	500±50		%	
Fe ₂ O ₃	0.8±0.1	%			Swelling Capacity	25±1		ml/g	
TiO ₂	0.2±0.02	%			PH Value	9.4±0.2		23.5°C	
K ₂ O	0.3±0.1	%			Bulk Density	0.8±0.1		Kg/dm³	
Na ₂ O	1.5±0.2	%			Bulk Size	>30		mm	
CaO	0.8±0.1	%			Raw Colour	I	93.5±0.5	-	
MgO	0.7±0.1	%				a	0.5±0.1	-	
PbO	<0.01	%				b	4±0.2	-	
BaO	0.01	%			Firing at 1200°C / 20 min	Colour	I	75±2	-
SO ₃	Trace	%					a	1.5±0.2	-
MnO	0.01	%					b	11±1	-
P ₂ O ₅	0.01	%				Total Shrinkage	13±0.5	%	
ZrO ₂	0.02	%			Mineralogical Analysis				
L.O.I	6±0.5	%			Montmorillonite	55±5		%	
As	<0.1	mg/l			Quartz	6±1		%	
Pb	4±1	mg/l			Cristobalit	30±2		%	
Cd	<0.1	mg/l			Kaolinite	4±1		%	
Cr	8±1	mg/l			Muscovite	2±0.5		%	
Cu	7±1	mg/l			Na-Feldspar	2±0.5		%	
Ni	5±1	mg/l			K-Feldspar	1±0.2		%	
Zn	52±3	mg/l			Ceramic Industry				
Hg	<0.1	mg/l							
TI	0.12±0.01	mg/l							
CUSTOMERS APPLICATION									