

# Structural Ceramics Range

Helping you improve yields and  
increase productivity



Minerals used in the production of structural ceramics perform a variety of roles, from improving drying behaviour and end-product strengths through to frost resistance and aesthetic surface finishes.

This often requires specialised augmenting clays to improve and support local raw materials. Our diverse product portfolio features additives, colourants, minerals and prepared engobes suitable for all main structural applications.



Clays						Chemical Analysis (unfired) %						"Modulus of Rupture - vac. extruded (dried @110°C) MPa"	Residue %> (wet)			Particle Size %< (Sedigraph)		Water absorption		Recommended Application				
		Product	Country of Origin	Mineral Type	Delivery Form	Firing Colour	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Alkalis		LOI	63µm	10µm	2µm	1100°C	1200°C	Facing Bricks	Backing Bricks	Rooftiles	Stoneware Pipes	Engobes	
SW	DE	plastic clay	shredded	white	70.0	19.6	0.7	1.3	2.3	5.6	4.8	6	53	56	-	-	X							
Y	DE	plastic clay	shredded	yellow	60.7	24.1	2.4	2.5	1.5	8.3	8.4	2.5	89	72	-	-	X							
LED	DE	plastic clay	shredded	leather	67.3	18.8	3.5	2.3	1.7	6.3	-	6	-	60	10.6	4.1	X		X	X				
RB/1a	DE	plastic clay	shredded	red	57.0	21.1	8.9	1.2	2.6	7.3	7.8	2	91	75	-	-	X	X	X					
RB/2a	DE	plastic clay	shredded	red-brown	57.8	21.3	7.1	1.2	2.8	7.1	7.0	1	90	72	-	-		X	X	X				
RB/3a	DE	plastic clay	shredded	beige	66.0	18.5	5.0	1.1	2.4	5.0	5.1	5	80	61	-	-		X	X					
202	DE	plastic clay	shredded	light brown	67.4	19.2	3.9	1.3	2.2	5.5	4.5	2	80	60	-	-		X	X	X				
AL 28/35	DE	plastic clay	shredded	beige	56.2	27.2	1.9	1.3	3.2	8.6	5.9	1	93	80	-	-	X			X				
STA	DE	plastic clay	shredded	yellow	65.1	20.3	2.9	1.7	1.6	7.3	10.0	4	85	68	-	-	X			X				
STB	DE	plastic clay	shredded	beige	73.2	15.6	1.8	1.9	1.1	5.7	12.6	10	78	59	-	-		X		X				
SN	DE	slate clay	shredded	red	58.5	21.5	8.4	1.0	4.2	5.7	5.0	16	59	29	-	-	X	X		X				
DBK-2	UA	plastic clay	shredded	creme-yellow	67.0	20.0	1.4	1.3	2.9	6.0	9.0	2	94	67	-	-	X		X	X				
DBK-2E	UA	plastic clay	shredded	light creme	65.0	22.0	1.4	0.9	2.9	6.0	9.0	2	94	67	-	-	X	X	X	X				



Kaolins					Chemical Analysis (unfired) %						Modulus of Rupture extruded (dried @110°C) MPa"	Residue %>	Particle Size %<			Recommended Application				
Product	Country of Origin	Mineral Type	Delivery Form	Firing Colour	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Alkalis	LOI		63µm	10µm	2µm	Facing Bricks	Backing Bricks	Roof Tiles	Stoneware Pipes	Engobes	
RK H	DE	raw kaolin	shredded	white	70.7	19.6	0.8	0.3	0.1	6.8		13		40	X	X	X	X		
Kerasan	DE	clay/kaolin refined	noodle	light grey	70.0	20.2	0.8	0.4	0.6	7.4	5.0	0.1	90	47	X		X		X	
KD/KDG	CZ	kaolin refined	noodle	white	52.9	32.5	0.8	0.4	1.2	11.6	4.3	0.1	96	56	X		X		X	

Sand					Chemical Analysis %						"Modulus of Rupture extruded (dried @110°C) MPa"	Particle Size d50	Particle Size % >			Recommended Application				
Product	Country of Origin	Mineral Type	Delivery Form	Firing Colour	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Alkalis	LOI		µm	1mm	250µm	Facing Bricks	Backing Bricks	Roof-tiles	Stoneware Pipes	Engobes	
M31	BE	sand	washed	./.	99.5	./.	0.04	./.	./.	./.	./.	370	1	85	X					
M32	BE	sand	washed	./.	99.5	./.	0.03	./.	./.	./.	./.	260	0	57	X					
M34	BE	sand	washed	./.	99.0	./.	0.07	./.	./.	./.	./.	170	0	3	X					

Feldspar					Chemical Analysis %						"Modulus of Rupture extruded (dried @110°C) MPa"	Residue %>	Particle Size %<			Recommended Application				
Product	Country of Origin	Mineral Type	Delivery Form	Firing Colour	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Alkalis	LOI		63µm	10µm	2µm	Facing Bricks	Backing Bricks	Roof Tiles	Stoneware Pipes	Engobes	
K-Feldspar	DE/NO/ TR	feldspar	crushed, powdered	./.	66	18	0.04	./.	12	./.	./.	various	various	various	X			X		
Na-Feldspar	DE/NO/ TR	feldspar	crushed, powdered	./.	70	18	0.05	./.	10	./.	./.	various	various	various	X					
Nepheline Syenite	DE/NL/NO	nepheline	crushed, powdered	white	55	24	0.1	./.	8.2 / 8.8	./.	./.	various	various	various	X				X	



Additives					Chemical Analysis %						"Modulus of Rupture extruded (dried @110°C) MPa"	Residue %>	Particle Size %<		Recommended Application			
Product	Country of Origin	Mineral Type	Delivery Form	Firing Colour	MnO <sub>2</sub> Equivalent	Mn <sub>3</sub> O <sub>4</sub>	Mn total	Fe Equivalent	Cr	LOI		45µm			Facing Bricks	Backing Bricks	Roof Tiles	Engobes
Mangalox A&C	NL	manganese	powdered	brown	69/67	./.	./.	./.	./.	./.	./.	1.0	various		X		X	X
Mangalox H (Mn <sub>3</sub> O <sub>4</sub> )	NL	hausmannite	powdered	brown	./.	96	./.	2.2	./.	./.	./.		various		X			
Portafer H	NL	iron oxide	powdered	light red	./.	./.	0.6	96.5	./.	./.	./.		various		X		X	X
Portachrom	NL	chromeoxide	powdered	light-dark grey	./.	./.	./.	24	44	./.	./.		various		X		X	X

Engobes					Chemical Analysis						"Modulus of Rupture extruded (dried @110°C) MPa"	Residue %>	Particle Size %<		Recommended Application			
Product	Country of Origin	Mineral Type	Delivery Form	Firing Colour	SiO <sub>2</sub>	Al <sub>2</sub> O <sub>3</sub>	Fe <sub>2</sub> O <sub>3</sub>	TiO <sub>2</sub>	Alkalis	LOI		63µm	10µm	2µm	Facing Bricks	Backing Bricks	Roof Tiles	Engobes
RA	DE	clay	powdered	red	57.0	21.1	10.2	1.2	2.6	7.3	7.8	2.2	91	75	X			X
Engopal 100	DE	clay	powdered	red	53.6	19.2	8.7	0.9	9.1	8.5		1.5	90	79	X			X
S-Ton	DE	clay	powdered	creme	56.5	27.7	2.6	1.2	3.0	8.3	7.1	0.5	95	80	X			X
SH-Ton	DE	clay	powdered	beige	59.3	25.0	3.1	1.1	2.7	8.1	5.3	2.2	93	73	X			X
Kerasan	DE	clay/kaolin	powdered	white	65.5	21.5	0.6	0.5	0.7	7.9	4.0	0.1	90	47	X			X
KDG, KD2000	CZ/DE	kaolin	powdered	white	51.3	33.5	0.7	0.5	1.2	12.4	3.9	0.1	97	60	X			X
					Firing Temp.	L	a	b	Surface effect									
Red Roof	DE	ready prepared	spray-dried	red	1000-1100°C	42.89	22.04	20.73	mat	./.	./.	< 80µm	./.	./.	X		X	
Schwarz LT54.5	DE	ready prepared	spray-dried	black	1000-1100°C	25.68	0.52	-0.23	shiny	./.	./.	< 80µm	./.	./.	X		X	
Kupferrot 7.4	DE	ready prepared	spray-dried	copper-red	1000-1100°C	41.45	21.69	17.41	mat	./.	./.	< 80µm	./.	./.	X		X	
Goldocker TR 22.1	DE	ready prepared	spray-dried	gold-ochre	1000-1100°C	39.26	20.03	16.63	shiny	./.	./.	< 80µm	./.	./.	X		X	
Anthrazit CD 16	DE	ready prepared	spray-dried	anthrazite	1000-1100°C	26.95	0.33	-0.54	satin	./.	./.	< 80µm	./.	./.	X		X	





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