

CERALOX ALUMINA CERAMIC APPLICATIONS



SASOL

Typical chemical properties

Pure Al ₂ O ₃	Al ₂ O ₃ purity	Primary impurities (ppm)											
		Na	Si	Fe	Ca	Mg	Ga	Cr	Ni	Ti	Cu	Zn	Zr
APA – 0.5	99,96 %	10	60	100	10	30	55	5	5	30	<1	45	5
AHPA – 0.5	99,995 %	5	15	10	5	5	<1	<1	<1	<1	<1	2	2

Al ₂ O ₃ doped with MgO	Al ₂ O ₃ [†] purity	Primary impurities (ppm)											
		Na	Si	Fe	Ca	Mg	Ga	Cr	Ni	Ti	Cu	Zn	Zr
APA – 0.5 with MgO	99,96 %	10	60	100	10	300	55	5	5	30	<1	45	5
AHPA – 0.5 with MgO	99,995 %	5	15	10	5	300	<1	<1	<1	1	<1	2	2

† Al₂O₃ purity excluding Magnesium Oxide doping

‡ Al₂O₃ purity excluding formulation

Al ₂ O ₃ doped with MgO ready to press	Al ₂ O ₃ [‡] purity	Primary impurities (ppm)											
		Na	Si	Fe	Ca	Mg	Ga	Cr	Ni	Ti	Cu	Zn	Zr
APA - RTP - SB	99,96 %	10	60	100	10	300	55	5	5	30	<1	45	5
AHPA – RTP - SB	99,995 %	5	15	10	5	300	<1	<1	<1	1	<1	2	2

Typical physical properties

Product	Particle size (µm)			Surface area (m ² / g)	Green density (g / cc)	Fired density (g / cc)
	d10	d50	d90			
APA - 0.5	0,2	0,3	0,4	7,5	2,22	3,94
AHPA - 0.5	0,2	0,3	0,4	8,0	2,22	3,94
APA - 0.5 with MgO	0,2	0,3	0,4	7,5	2,22	3,96
AHPA - 0.5 with MgO	0,2	0,3	0,4	8,0	2,22	3,96
APA – RTP – SB	25	60	125	7,5	2,40	3,95
AHPA – RTP - SB	25	60	125	8,0	2,40	3,95

Methodology

- Chemical analysis: Leeman Labs Inductively Coupled Argon Plasma
- Particle size distribution: Horiba[®] Laser Diffraction
- Surface area: B.E.T. Micromeritics[®] Gemini
- Green density/fired density: ACMA Test 6 and ASTM C-373-72. Green density values are determined on a 10 gm pellet, pressed at 5000 PSI (34.47 Mpa) in a 1" floating head die. Fired density values are determined on a pellet sintered at 1510 °C for 2 hours.

CONTACT INFORMATION

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