

TECHNICAL DATA SHEET

MATERIAL		ALUMINA				MAGNESIUM OXIDE	MULLITE
PROPERTIES	UNIT	AL995	AL99	AL95	AL60	MgO	-
Ingredient	%	99.50	99.00	95.00	60.00	-	-
Color	-	Ivory	Ivory	Ivory & White	White	White	White
Permeability	-	Gas-tight	Gas-tight	Gas-tight	Gas-tight	Gas-tight	Gas-tight
Density	g/cm ³	3.9	3.8	3.75	3	3.58	2.6
Hardness	Mohs Scale	9	9	8.8	7.5	6	8
Water Absorption	-	≤ 0.2 %	≤ 0.2 %	≤ 0.2 %	≤ 0.2 %	0	0
Flexural strength (Typical 20°C)	MPa	370	340	304	205	140	120
Compressive Strength (Typical 20°C)	MPa	2300	2210	1910	1820	550	500
C.T.E. (25°C to 800°C)	10 ⁻⁸ /°C	7.6	7.6	7.6	7.1	13	5.6
Dielectric Strength (5 mm Thickness)	AC-kv/mm	10	10	10	9	-	10.2
Dielectric Loss (25°C / 1MHz)	-	< 0.0001	0.0006	0.0004	0.0007	-	0.002
Dielectric Constant (25°C / 1MHz)	(25°C / 1MHz)	9.7	9.5	9.2	8.6	-	6
Volume Resistivity (20°C) (300°C)	Ω*cm ²	> 10 ¹⁴ 2*10 ¹²	> 10 ¹⁴ 4*10 ¹¹	> 10 ¹⁴ 2*10 ¹¹	> 10 ¹⁴ > 10 ¹³	> 10 ¹⁴ -	> 10 ¹⁴ 5*10 ¹²
Long-term Operating Temperature	°C	1650	1600	1400	1100	2300	1550
Thermal Conductivity (25°C)	W/m*K	35	34	20	16	36	3.6