

Aluminium oxide Al_2O_3 (99.6%)

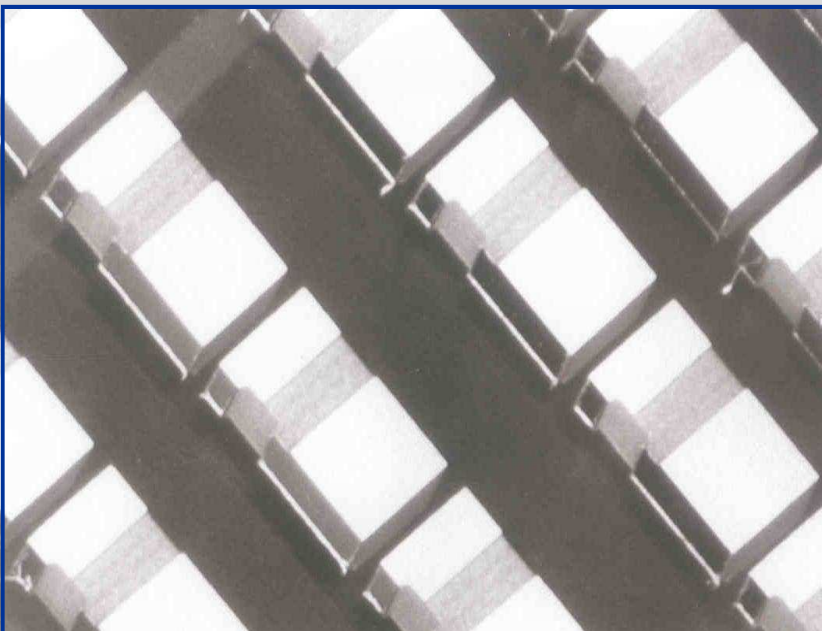
Mintres BV is a company specializing in shaping, coating and assembling advanced material components for a number of industries including electronics and opto-electronics as well as to research institutions. Mintres BV has a vast experience in this field and its workforce has developed a wide variety of advanced processing techniques and authored many patents.

Aluminium oxide (Al_2O_3) is a standard substrate material at a very good price/performance ratio for a wide range of applications such as Laser Diode / Photodetector submounts, RF and Microwave devices as well as microelectronic substrates and jumper chips.

Aluminium oxide from mintres is available double side polished to high surface qualities and flatness. Mintres applies both high precision microdicing and laser cutting processes to shape this material. A wide range of thin film metallizations is available including basic Ti/Pt/Au and AuSn materials for advanced soldering needs.

Mintres operates extensive, class 100 compatible clean rooms and product packaging.

Ask us how we can be of help.



Characteristics of Aluminium oxide 99.6%

Thermal conductivity (W/mK)	29
Coefficient of thermal expansion (ppm/K)	7.0
Hardness HV	2000
Density (g/cm ³)	3.8
Young's Modulus (GPa)	320
T _{max}	1900
Bending Strength (MPa)	340

Typical product specifications

Standard available material thickness	0.20, 0.40, 0.50, 0.60, 0.635, 0.80, 1.00mm
Surface quality	Ra < 100nm
Au metallization configuration	Ti/Pt/Au (100/120/1000nm)
Solder metallization configuration	Ti/TiN/Ti/AuSn (80/20)/Au (40/120/40/3000/50nm)
Possible metallization schemes:	<ul style="list-style-type: none"> - Fullface Au - Patterned Au - Fullface Au plus patterned AuSn - Patterned Au plus patterned AuSn - Edge wrap around metallization Au