

# SPINELLE

ROHS & REACH COMPLIANT

## Physical properties

<b>CRYSTALLINE STRUCTURE</b>	Cubic monocrystal
<b>COMPOSITION</b>	$MgAl_2O_4$
<b>PURITY</b>	99,99%
<b>DENSITY</b>	3.61 g/cm <sup>3</sup>
<b>DISLOCATION DENSITY</b>	$10^9 - 10^8 / m^2$

## Thermal properties

<b>MELTING POINT</b>	2300-2330 K
<b>SOFTENING POINT</b>	2070 K
<b>SPECIFIC HEAT</b>	$7.9 \cdot 10^2$ j/kg ·K at 300 K
<b>THERMAL EXPANSION</b>	$5.9 \cdot 10^{-6} / K$

## Mechanical properties

<b>HARDNESS</b>	Mohs 8 Knoop 1175-1380
<b>YOUNG'S MODULUS</b>	$4.4 \cdot 10^{11}$ Pa at 300 K
<b>MODULUS OF RUPTURE</b>	$4.0 \cdot 10^8$ Pa at 300 K
<b>COMPRESSIVE STRENGTH</b>	$2.1 \cdot 10^9$ Pa at 300 K
<b>TENSILE STRENGTH</b>	$1.9 \cdot 10^8$ Pa at 300 K
<b>POISSON'S CONSTANT</b>	0.30

## Electrical properties

<b>DIELECTRIC CONSTANT</b>	8-9
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## Optical properties

<b>REFRACTIVE INDEX ND AT 0.5893 μM</b>	1.727
<b>CHROMATIC DISPERSION (<math>N_F - N_C</math>) TRANSMISSION, DISC THICKNESS 1 MM :</b>	0.012
<b>- INFRARED</b>	85%      1μm

## Transmission

