

3DMIX TECHNICAL DATASHEET

ALUMINA

Properties

- ⊗ Good mechanical strength
- ⊗ Good thermal conductivity
- ⊗ High electrical resistivity
- ⊗ High hardness
- ⊗ Good wear resistance
- ⊗ Chemically inert

Applications

- ⊗ Electrical insulators
- ⊗ Laboratory devices
- ⊗ Telecommunication equipment
- ⊗ Electronical devices
- ⊗ Spatial

| | Norm | Value | Symbol |
|--|-------------|-------|------------|
| Sintered material | | | |
| Density (g/cm ³) | NF EN 623-2 | 3,9 | ρ |
| Particle size (μm) | - | 2-10 | d |
| Microstructure | - | | |
| Mechanical properties | | | |
| Vickers hardness (GPa) | NF EN 843-4 | 16,4 | HV1 |
| Fracture toughness (MPa.m ^{1/2}) | - | 4 | K_{1C} |
| Young's modulus (GPa) | NF EN 843-2 | 360,8 | E |
| Shear modulus (Gpa) | NF EN 843-2 | 145,4 | G |
| Poisson's ratio | NF EN 843-2 | 0,242 | ν |
| Flexural strength (Mpa) | NF EN 843-1 | 400 | σ_f |

Non contractual data for reference only – V16062016



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