

ZIRCONIA CHARACTERISTICS

| <u>PROPERTIES</u> | | | <u>ZIRCONIA</u> |
|-------------------------------|-----------------|---------------------|---|
| BRAND AND CODES | | | SZY-H |
| APPARANCE | | | DENSE |
| CHEMICAL COMPOSITION | | | ZrO ₂ (Y ₂ O ₃) |
| BULK DENSITY | | g/cm ³ | 6.05 |
| APPARENT POROSITY | | % | 0.5> |
| MODULUS OF RUPTURE, RT | | MPa | 1080 |
| YOUNG'S MODULUS | | GPa | 205 |
| POISSON'S RATIO | | | 0.31 |
| HARDNESS, Hv | | GPa | 12.3 |
| FRACTURE TOUGHNESS | | MPa√m | 6.0 |
| THERMAL EXPANSION COEFFICIENT | | x10 ^{-6/K} | 10.5 |
| THERMAL CONDUCTIVITY RT | | W/m.K | 3.8 |
| THERMAL SHOCK RESISTANCE ΔT | | °C | |
| DIELECTRIC STRENGTH | | KV/m | |
| ELECTRICAL RESISTIVITY | 200 °C 50° C | Ω·cm | 10 ¹² |
| DIELECTRIC CONSTANT, 1 MHz | | | 15.0 |