

Hot-pressed Silicon Carbide Sputtering Target

Formula: SiC

Thickness: 1.5mm

Diameter: 20mm

UOM Code: 068-750-62

SKU: 1000009580-group

Product Code: SJ60-ST-000150

Material Properties for Ceramics

Chemical Resistance

| Element | Value |
|----------------------|-----------|
| Acids - concentrated | Good |
| Acids - dilute | Good |
| Alkalis | Good-Poor |
| Halogens | Good-Poor |
| Metals | Fair |

Electrical Properties

| Element | Value |
|-----------------------------|---------------------|
| Dielectric constant | 40 |
| Volume resistivity(Ohmcm) | 10^3 - 10^7 @25 |

Physical Properties

| Element | Value |
|-----------------------------|-------|
| Apparent porosity(%) | 0 |
| Density(gcm ³) | 3.15 |

Thermal Properties

| Element | Value |
|---|--------------|
| Melting point(C) | 2650-2950 |
| Upper continuous use temperature(C) | 1500-1650 |
| Specific heat(J K ⁻¹ kg ⁻¹) | 670-710@25°C |

| Element | Value |
|---|---------------|
| Thermal conductivity(W m ⁻¹ K ⁻¹) | 90-160@20°C |
| Coefficient of thermal expansion(x10 ⁻⁶ K ⁻¹) | 4.5@20-1000°C |

Mechanical Properties

| Element | Value |
|--|--------------|
| Tensile modulus(GPa) | 200-500 |
| Hardness - Vickers(kgf mm ⁻²) | 2400-2800 |
| Shear strength(MPa) | 210-380 |
| Tensile strength(MPa) | 400 |

Pultrusions

| Element | Value |
|-----------------------------|--------------|
| Compressive strength(MPa) | 1000-1700 |