

# Yttria-stabilized Zirconia Tapered Wall Crucible

**Formula:**  $ZrO_2/Y_2O_3$

**Outer Diameter Top:** 35mm

**Outer Diameter Bottom:** 23.5mm

**External Height:** 45mm

**Wall Thickness:** 1.95mm

**CAS Number:** 114168-16-0

**UOM Code:** 145-851-52

**SKU:** 1000047747-group

**Product Code:** ZR61-CB-000417

## Material Properties for Ceramics

### Thermal Properties

Element	Value
Melting point( C )	2700
Upper continuous use temperature( C )	2200
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	400-500@25°C
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	2.5@20°C
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	10@20-1000°C

### Physical Properties

Element	Value
Density( gcm <sup>-3</sup> )	5.9

### Mechanical Properties

Element	Value
Tensile modulus( GPa )	200
Hardness - Vickers( kgf mm <sup>-2</sup> )	1250
Tensile strength( MPa )	300-600

### Pultrusions

Element	Value
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Compressive strength( MPa ) 2000