

# Tungsten Carbide/Cobalt Tube

**Formula:** WC 94/Co 6

**Outside Diameter:** 1mm

**Wall Thickness:** 0.3mm

**Inside Diameter:** 0.4mm

**Length:** 150mm

**Production Method:** Centreless Ground

**UOM Code:** 551-493-96

**SKU:** 1000195296-group

**Product Code:** W-60-TB-000140

## Material Properties for Ceramics

### Mechanical Properties

Element	Value
Poisson's ratio	0.21-0.22
Tensile modulus( GPa )	600
Hardness - Vickers( kgf mm <sup>2</sup> )	1550
Tensile strength( MPa )	1440

### Thermal Properties

Element	Value
Upper continuous use temperature( C )	600-630
Specific heat( J K <sup>-1</sup> kg <sup>-1</sup> )	200-480@25°C
Thermal conductivity( W m <sup>-1</sup> K <sup>-1</sup> )	60-80@20°C
Coefficient of thermal expansion( x10 <sup>-6</sup> K <sup>-1</sup> )	4.6-5@20-1000°C

### Physical Properties

Element	Value
Density( gcm <sup>3</sup> )	14.95

### Pultrusions

Element	Value
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Compressive strength( MPa ) 5300-7000

## **Electrical Properties**

<b>Element</b>	<b>Value</b>
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Volume resistivity( Ohmcm )	$2 \times 10^{10}$ @25
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