



# CTB004 LAUNCH PACK

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*Internal use*

July 2017

**FOR INTERNAL USE ONLY**

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# AGENDA SLIDE

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**1. CTB004 OVERVIEW**

**2. TARGET APPLICATIONS**

**3. FORMAT & AVAILABILITY**

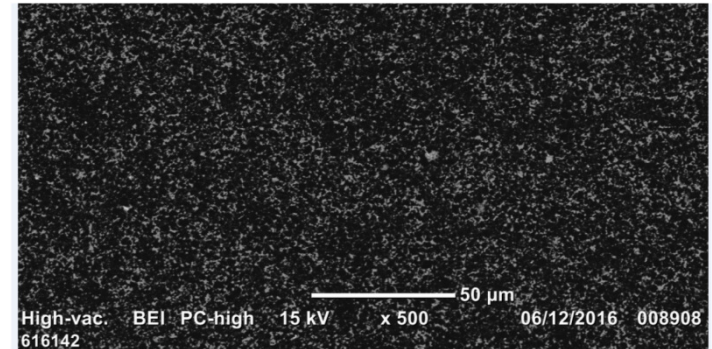
**4. TECHNICAL RESULTS**

# **CTB004 PRODUCT DETAILS**

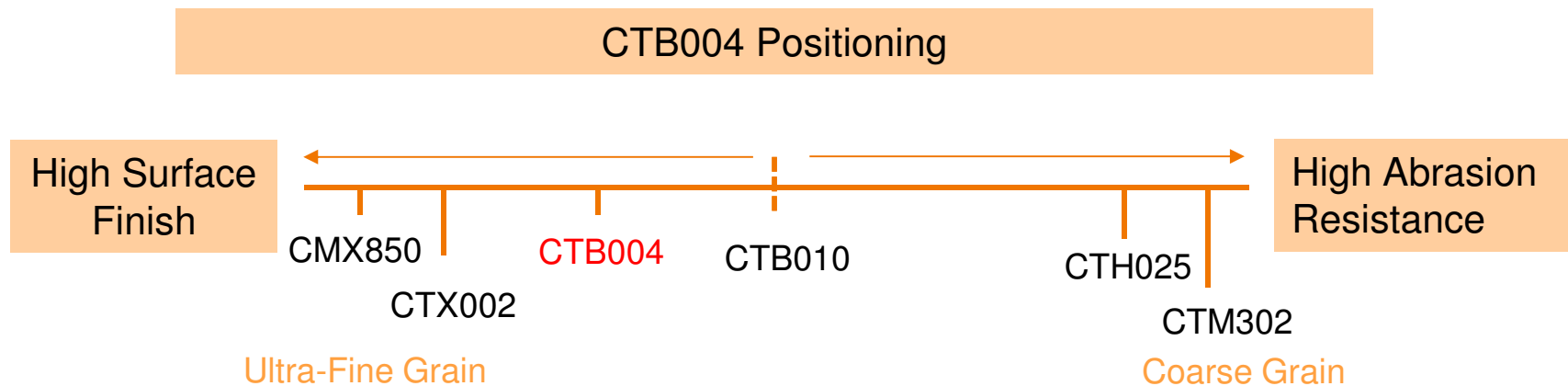
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# CTB004 OVERVIEW

- CTB is a 4 micron PCD with excellent abrasion resistance
- Fills a gap in our fine grain PCD Metal portfolio



Microstructure @ 500 x magnification



# TARGET APPLICATIONS

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Target Competitor 2,4 and 6 micron PCD grades

Industry	Application
Consumer Electronics	<p>Edge milling of aluminium case</p> <p>CTB004 can provide longer tool-life vs CMX where abrasion is a factor</p> <p>CMX850 best performing for surface finish and highly interrupted cut</p>
Auto/Aero	<p>Target 'turning' applications where higher surface finish is required vs CTB010 for aluminium</p> <p>CTB004 secondary option for Round Tool formats</p>

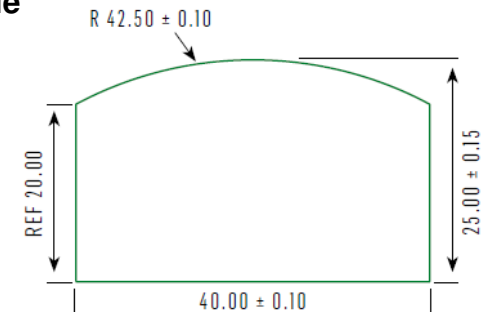
# FORMAT & AVAILABILITY

PCD Metal				PCD Layer Thickness (mm)	Segments
Item No	Item Description	PCD Layer	Overall Height (+/- 0.05mm)		
184-200-0007-01	CTB R70.0-360-1603PL 004	0.3mm	1.6mm	0.20 to 0.45	Segments Available: inc +/- 0.025mm
184-200-0004-01	CTB R70.0-360-1605PL 004	0.5mm	1.6mm	0.35 to 0.65	
184-500-0018-01	CTB TL40.0-20.0-42.5-1605PL 004*	0.5mm	1.6mm (+0/-0.04mm)	0.40 to 0.60	

PCD Wood
Not available as standard

Material Availability	
Samples	Available for PCD Tile format
Lead time	Contact Customer Service. During ramp up phase contact CSC or Account Manager

\* PCD Tile



# TECHNICAL DETAILS

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## CTB004 TEST DETAILS

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Work-piece = Metal matrix composite  
(40%vol SiC, 60%vol Al)

Continuous OD turning (abrasion test)

Cutting speed,  $V_c = 500\text{m/min}$

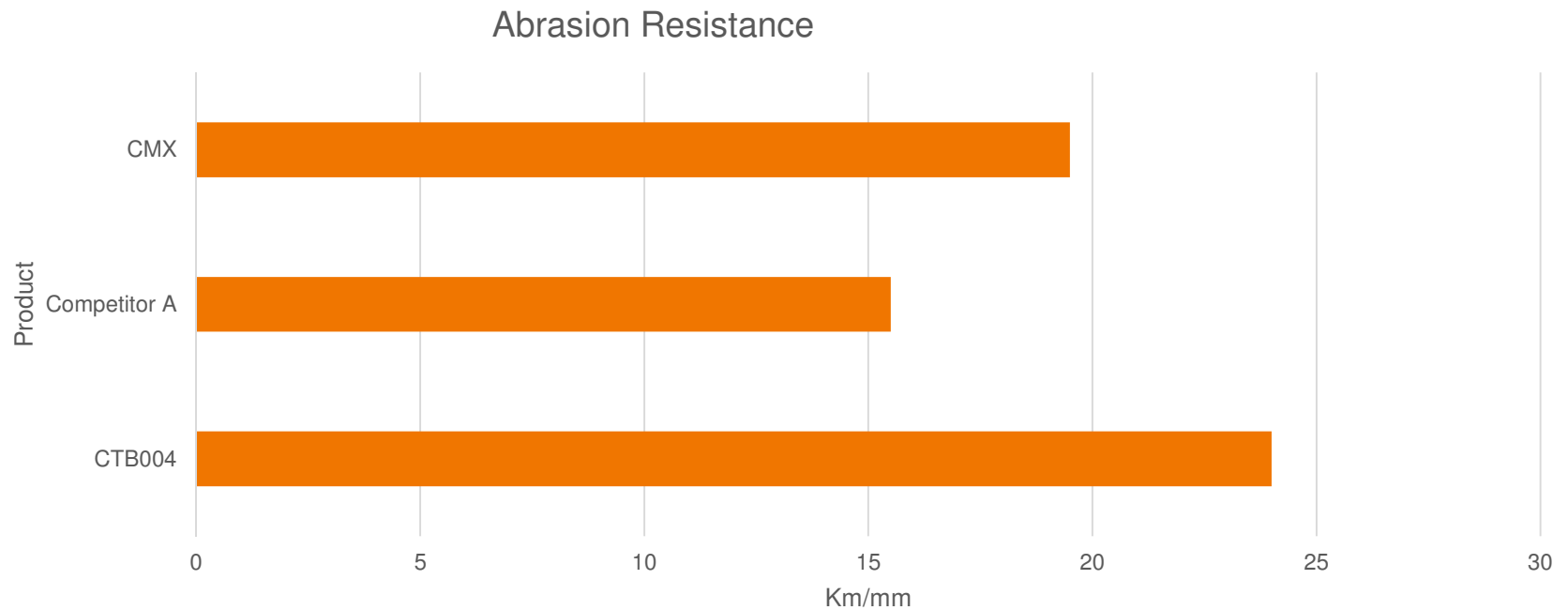
Feed rate,  $f = 0.1\text{mm/rev}$

Depth of cut,  $a_p = 0.25\text{mm}$

# CTB004 – EXCELLENT ABRASION RESISTANCE VERSUS MAIN COMPETITOR

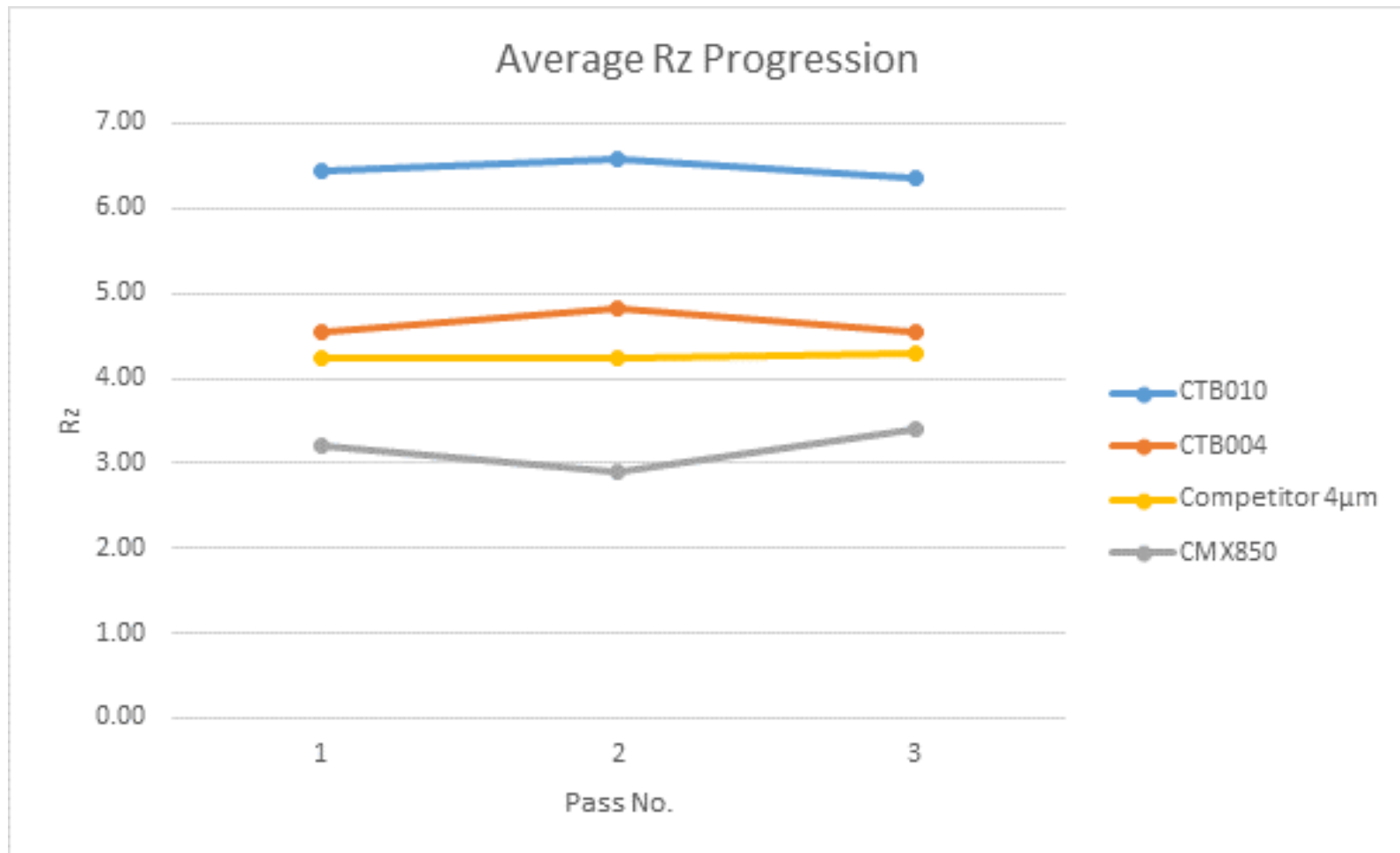
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## MMC TURNING TEST

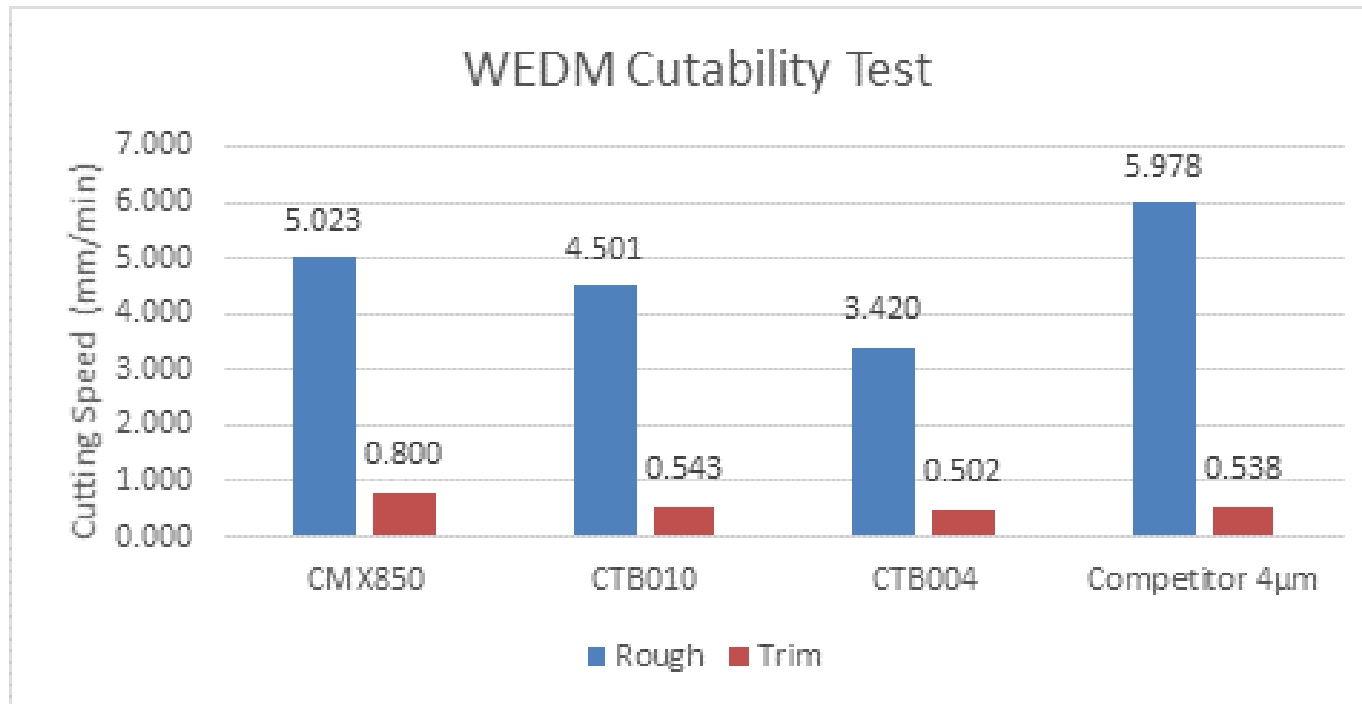


\*Abrasion resistance described as the inverse of wear rate, thus larger number shows greater abrasion resistance

# SURFACE FINISH



# WEDM CUTTING



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This product has been manufactured under the controls established by a Bureau Veritas Certification approved management system.

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