



Mantec Technical Ceramics Ltd in the UK has been making the globally renowned *Bullers Rings* for over 80 years. Armed with decades of experience Mantec Technical Ceramics has now developed a new product, the *Bullers Process Control Disc*, designed to monitor and measure 'Heat Work' within the sophisticated kilns used by the electronics manufacturing sector.

World Class Manufacturing Techniques

To ensure consistency and accuracy, which is a key parameter within the electronics sector, the *Bullers Process Control Discs* are manufactured to a precise materials specification and under strict quality control parameters.

Each batch of materials is pre-tested to our exacting standards before being released for manufacture. This consistency ensures a reliable, consistent and reproducible product quality time after time – invaluable to the electronics sector.

Maximising Yields and Profit

Maximum yield and profit come from consistent and reliable production.

It is critical to ensure a uniform and controlled 'Heat Work' profile within any kiln environment to ensure consistency of fired product.

Even with the most sophisticated of kiln control systems, there is no substitute for monitoring and controlling Heat Work with a *Bullers Process Control Disc*.

Small changes in Heat Energy absorption could have a dramatic effect on the fired component performance, by monitoring 'Heat Work' at the point of product placement you will ensure an even firing characteristic resulting in higher yields and greater profitability.



Temperature Correlation Charts

All *Bullers Process Control Discs (BPCD)* are manufactured to a set of consistent principles and harmonised against internal standards for any of our given temperature ranges. This commitment to quality control enables the customer to use the 'same' standard temperature correlation chart provided for each range, this simplifies the post measurement process removing a variable for the production team.

Standard temperature correlation charts are provided for each *BPCD* temperature range. This is provided as a 'guide' to enable the user to make an association to the 'peak firing temperature' which may be necessary as part of the users Quality Assurance procedure.

The key measurement parameter for any Quality Assurance program is to log the *BPCD outside disc diameter* post firing and to act on any changes to that diameter from the norm. This is the crucial indicator of any change in the Heat Work local to

the product being fired, enabling timely firing program changes to be made.

Documentation and Quality Control

BPCD comply with the most exacting international Quality Control and documentation standards.

All relevant documentation to serve the electronics industry is in place including, Material Safety Data Sheets, Certificate of Assurance, Certificate of Conformity, Final Inspection Report, QDS, SGS RoHS Certification and ISO Certification. Global accreditation that imparts confidence to the user.





Product Specifications

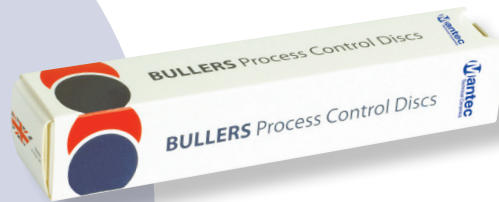
All BPCD manufacturing processes conform to ISO 9001 / 2008.

	Diameter	3.5mm	7mm
LT	20	✓	
MT	20	✓	
HT	20	✓	✓
VHT	20		✓

Standard Temperature Ranges

BPCD - LT	900°C - 1247°C	Low Temperature
BPCD - MT	1005°C - 1320°C	Medium Temperature
BPCD - HT	1200°C - 1550°C	High Temperature
BPCD - VHT	1500°C - 1770°C	Very High Temperature

Distributor Details:



www.mantectechnicalceramics.com

bullers@mantectc.com

Normacot Road, Longton, Stoke-on-Trent ST3 1PA T: +44 (0) 1782 377550