



**PTCR - PROCESS TEMPERATURE CONTROL RINGS - COMPREHENSIVE DATA SHEET**

The key to high quality products through improved, reliable firing control

The PTCR - Process Temperature Control Ring is a ceramic product that registers the actual heat treatment in kilns through contraction of its diameter. The PTCR takes account of both radiation and transfer heat as well as of the effects of temperature over time. It indicates the accumulated total heat treatment in a practical, single number: Ring Temperature (RT)

**PTCR ETH/ETL**

**A PRODUCT INFORMATION**

|                            |   |
|----------------------------|---|
| Complete type nomenclature | PTCR ETH 850–1100°C / 1562–2012°F                   |
| Product identification     | PTCR ETL 850–100°C / 1562–2012°F                    |
| Ring colour as supplied    | ETH/ETL – code impressed in each ring               |
| Temperature tables         | Light Green   |
|                            | Batch-specific tables are included in each SPQ*-box |
|                            | * SPQ = Standard Packing Quantity                   |

**B APPLICATION INFORMATION**

|                                     |  |
|-------------------------------------|--|
| Applicable Temperature Range (ATR)  | 850–1100°C (1562–2012°F)   |
| Recommended Temperature Range (RTR) | 850–1100°C (1562–2012°F)   |
| Applicable in atmospheres including | Air, nitrogen*, hydrogen*, argon*, vacuum*   |
| Applicable in kilns including       | Batch and continuous kilns   |
| Substrate                           | Fine Alumina powder  |
|                                     | * before application, the rings must be pre-fired under oxidizing atmosphere. Heat treatment program available at vibrantz |

**C AVAILABLE VERSIONS**

|          |   |
|----------|---|
| PTCR ETH | Dimensions: diameter 20 mm, height 7 mm   |
| PTCR ETL | Dimensions: diameter 20 mm, height 3.5 mm |

**D QUALITY INFORMATION**

|                              |  |
|------------------------------|--|
| Applicable quality standards | ISO 9001                               |
| Accuracy guarantee (68%)     | RTR ± 2.5 °RT                          |
| Batch identification         | Batch number is impressed in each ring |

**E ENVIRONMENTAL INFORMATION**

|                           |   |
|---------------------------|---|
| Main chemical ingredients | Silicates and various dopes (not for internal use). |
|---------------------------|---|

**F PACKING INFORMATION**

|                                    |  |
|------------------------------------|--|
| PTCR ETH Standard Packing Quantity | 1 box of 600 PTCR: 40 sleeves with 15 PTCR each  |
| PTCR ETH Minimum Order Quantity    | 1 box of 600 PTCR: 1SPQ-box with 600 PTCR        |
| PTCR ETL Standard Packing Quantity | 1 box pf 1200 PTCR: 40 sleeves with 30 PTCR each |
| PTCR ETL Minimum Order Quantity    | 1 box of 1200 PTCR: 1 SPQ-box with 1200 PTCR     |

**G COMPLETE RANGE OF PTCR RINGS AND PTCR MICROMETERS**

|               |                           |   |
|---------------|---------------------------|---|
| PTCR ZTH      | 560–660°C (1040–1220°F)   | PTCR Micrometer-D with digital read-out |
| PTCR UTH      | 660–900°C (1220–1652°F)   |   |
| PTCR ATH      | 600-850°(1112-1562°F)     |   |
| PTCR ETH, ETL | 850–1100°C (1562–2012°F)  |   |
| PTCR LTH, LTL | 970–1250°C (1778–2282°F)  |   |
| PTCR STH, STL | 1130–1400°C (2066–2552°F) |   |
| PTCR MTH, MTL | 1340–1520°C (2444–2768°F) |   |
| PTCR HTH, HTL | 1450–1750°C (2642–3182°F) |   |

vibrantz GmbH  
PECC-IND-FCT  
Gutleutstraße 215  
60327 Frankfurt am Main  
Tel. ++49/(0)69/27116 549  
Fax. ++49/(0)69/27116 484  
e-mail: [info-pcg@vibrantz.com](mailto:info-pcg@vibrantz.com)