

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 LTH / LTL

A PRODUCT INFORMATION

| | |
|---|---|
| Complete type nomenclature Product identification Ring colour as supplied Temperature tables | PTCR LTH 970-1250°C / 1778-2282°F PTCR LTL 970-1250°C / 1778-2282°F LTH / LTL - code impressed in each ring Red Batch-specific tables are included in each SPQ*-box. * SPQ = Standard Packing Quantity |
|---|---|

B APPLICATION INFORMATION

| | |
|---|---|
| Applicable Temperature Range (ATR) Recommended Temperature Range (RTR) Applicable in atmospheres including Applicable in kilns including | 970-1250°C (1778-2282°F) 1100-1250°C (2012-2282°F) Air, oxygen, nitrogen, hydrogen, argon, vacuum Batch and continuous kilns |
|---|---|

C AVAILABLE VERSIONS

| | |
|----------------------|--|
| PTCR LTH PTCR LTL | Dimensions: diameter 20 mm; height 7 mm Dimensions: diameter 20 mm; height 3.5 mm |
|----------------------|--|

D QUALITY INFORMATION

| | |
|--|--|
| Applicable quality standards Accuracy guarantee (68%) Batch identification | ISO 9001 RTR $\pm 1,75$ °RT 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 LTH Standard Packing Quantity PTCR LTH Minimum Order Quantity | 1 box of 600 PTCR: 40 Sleeves with 15 PTCR each 1 box of 600 PTCR: 1 SPQ-box with 600 PTCR |
| PTCR LTL Standard Packing Quantity PTCR LTL Minimum Order Quantity | 1 box of 1200 PTCR: 40 Sleeves with 30 PTCR each 1 box of 1200 PTCR: 1 SPQ-box with 1200 PTCR |

G COMPLETE RANGE OF PTCR RINGS AND PTCR MICROMETERS

| | |
|---|--|
| 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) | PTCR Micrometer-N with numerical read-out PTCR Micrometer-D with digital read-out |
|---|--|

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PTCR STH / STL
A PRODUCT INFORMATION

Complete type nomenclature

 Product identification
 Ring colour as supplied
 Temperature tables

 PTCR STH 1130-1400°C / 2066-2552°F
 PTCR STL 1130-1400°C / 2066-2552°F
 STH / STL - code impressed in each ring
 Green
 Batch-specific tables are included in each SPQ*-box.

* SPQ = Standard Packing Quantity

B APPLICATION INFORMATION

 Applicable Temperature Range (ATR)
 Recommended Temperature Range (RTR)

 1130-1400°C (2066-2552°F)
 1200-1400°C (2192-2552°F)

 Applicable in atmospheres including
 Applicable in kilns including

 Air, oxygen, nitrogen, hydrogen, argon, vacuum
 Batch and continuous kilns

C AVAILABLE VERSIONS

 PTCR STH
 PTCR STL

 Dimensions: diameter 20 mm; height 7 mm
 Dimensions: diameter 20 mm; height 3.5 mm

D QUALITY INFORMATION

 Applicable quality standards
 Accuracy guarantee (68%)
 Batch identification

 ISO 9001
 RTR $\pm 1,5$ °RT
 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 STH Standard Packing Quantity
 PTCR STH Minimum Order Quantity

 1 box of 600 PTCR: 40 Sleeves with 15 PTCR each
 1 box of 600 PTCR: 1 SPQ-box with 600 PTCR

 PTCR STL Standard Packing Quantity
 PTCR STL Minimum Order Quantity

 1 box of 1200 PTCR: 40 Sleeves with 30 PTCR each
 1 box of 1200 PTCR: 1 SPQ-box with 1200 PTCR

G COMPLETE RANGE OF PTCR RINGS AND PTCR MICROMETERS

 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)

 PTCR Micrometer-N with numerical read-out
 PTCR Micrometer-D with digital read-out

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PTCR MTH / MTL
A PRODUCT INFORMATION

Complete type nomenclature
Product identification
Ring colour as supplied
Temperature tables

PTCR MTH 1340-1520°C / 2444-2768°F
PTCR MTL 1340-1520°C / 2444-2768°F
MT H/MTL - code impressed in each ring
Cream
Batch-specific tables are included in each SPQ*-box.

* SPQ = Standard Packing Quantity

B APPLICATION INFORMATION

Applicable Temperature Range (ATR)
Recommended Temperature Range (RTR)

1340-1520°C (2444-2768°F)
1340-1520°C (2444-2768°F)

Applicable in atmospheres including
Applicable in kilns including

Air, oxygen, nitrogen, hydrogen, argon, vacuum
Batch and continuous kilns

C AVAILABLE VERSIONS

PTCR MTH
PTCR MTL
PTCR MTH / MTL

Dimensions: diameter 20 mm; height 7 mm
Dimensions: diameter 20 mm; height 3.5 mm
Standard pre-fired

D QUALITY INFORMATION

Applicable quality standards
Accuracy guarantee (68%)
Batch identification

ISO 9001
ATR/RTR $\pm 1,5$ °RT
Batch number is impressed in each ring

E ENVIRONMENTAL INFORMATION

Main chemical ingredients

Aluminium oxide and various dopes (not for internal use)

F PACKING INFORMATION

PTCR MTH Standard Packing Quantity
PTCR MTH Minimum Order Quantity

1 box of 600 PTCR: 40 Sleeves with 15 PTCR each
1 box of 600 PTCR: 1 SPQ-box with 600 PTCR

PTCR MTL Standard Packing Quantity
PTCR MTL Minimum Order Quantity

1 box of 1200 PTCR: 40 Sleeves with 30 PTCR each
1 box of 1200 PTCR: 1 SPQ-box with 1200 PTCR

G COMPLETE RANGE OF PTCR RINGS AND PTCR MICROMETERS

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)

PTCR Micrometer-N with numerical read-out
PTCR Micrometer-D with digital read-out

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PTCR HTH / HTL
A PRODUCT INFORMATION

 Complete type nomenclature
 Product identification
 Ring colour as supplied
 Temperature tables

 PTCR HTH 1450-1750°C / 2642-3182°F
 PTCR HTL 1450-1750°C / 2642-3182°F
 HTH / HTL - code impressed in each ring
 White
 Batch-specific tables are included in each SPQ*-box.

* SPQ = Standard Packing Quantity

B APPLICATION INFORMATION

 Applicable Temperature Range (ATR)
 Recommended Temperature Range (RTR)

 1450-1750°C (2642-3182°F)
 1450-1750°C (2642-3182°F)

 Applicable in atmospheres including
 Applicable in kilns including

 Air, oxygen, nitrogen, hydrogen, argon, vacuum
 Batch and continuous kilns

C AVAILABLE VERSIONS

 PTCR HTH
 PTCR HTL
 PTCR HTH / HTL

 Dimensions: diameter 20 mm; height 7 mm
 Dimensions: diameter 20 mm; height 3.5 mm
 Standard pre-fired

D QUALITY INFORMATION

 Applicable quality standards
 Accuracy guarantee (68%)
 Batch identification

 ISO 9001
 ATR/RTR $\pm 3,5$ °RT
 Batch number is impressed in each ring

E ENVIRONMENTAL INFORMATION

Main chemical ingredients

Aluminium oxyde and various dopes (not for internal use)

F PACKING INFORMATION

 PTCR HTH Standard Packing Quantity
 PTCR HTH Minimum Order Quantity

 1 box of 600 PTCR: 40 Sleeves with 15 PTCR each
 1 box of 600 PTCR: 1 SPQ-box with 600 PTCR

 PTCR HTL Standard Packing Quantity
 PTCR HTL Minimum Order Quantity

 1 box of 1200 PTCR: 40 Sleeves with 30 PTCR each
 1 box of 1200 PTCR: 1 SPQ-box with 1200 PTCR

G COMPLETE RANGE OF PTCR RINGS AND PTCR MICROMETERS

 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)

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PTCR ETH/ETL

| A | PRODUCT INFORMATION | |
|---|---|---|
| | Complete type nomenclature Product identification Ring colour as supplied Temperature tables | PTCR ETH 850-1100°C / 1562-2012°F PTCR ETL 850-1100°C / 1562-2012°F ETH/ETL – code impressed in each ring Light Green Batch-specific tables are included in each SPQ* -box * SPQ = Standard Packing Quantity |
| B | APPLICATION INFORMATION | |
| | Applicable Temperature Range (ATR) Recommended Temperature Range (RTR) Applicable in atmospheres including Applicable in kilns including | 850-1100°C (1562-2012°F) 850-1100°C (1562-2012°F) Air, oxygen, nitrogen, hydrogen, argon, vacuum Batch and continuous kilns |
| C | AVAILABLE VERSIONS | |
| | PTCR ETH PTCR ETL | Dimensions: diameter 20 mm, height 7 mm Dimensions: diameter 20 mm, height 3.5 mm |
| D | QUALITY INFORMATION | |
| | Applicable quality standards Accuracy guarantee (68%) Batch identification | ISO 9001 RTR ± 2.5 °RT 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 PTCR ETH Minimum Order Quantity PTCR ETL Standard Packing Quantity PTCR ETL Minimum Order Quantity | 1 box of 600 PTCR: 40 sleeves with 15 PTCR each 1 box of 600 PTCR: 1SPQ-box with 600 PTCR 1 box pf 1200 PTCR: 40 sleeves with 30 PTCR each 1 box of 1200 PTCR: 1 SPQ-box with 1200 PTCR |
| G | COMPLETE RANGE OF PTCR RINGS AND PTCR MICROMETERS | |
| | 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) | PTCR Micrometer-N with numerical read-out PTCR Micrometer-D with digital read-out |

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