

TempCHEK[®]

Calibrated Shrinkage Device for Precise Heat-Work Measurement

LoTemp for use to 1025°C
MedTemp for use to 1150°C
HiTemp for use to 1420°C



TempCHEK is a high quality pyrometric shrinkage product used to determine temperature or temperature differences within kilns. TempCHEK is measured after firing to the nearest 0.01 mm. Using a table supplied by Orton with each batch, the fired width can be used to determine an equivalent temperature.

TempCHEK is an excellent alternative for measuring firing conditions in kilns where space or operating conditions make the use of Pyrometric Cones impractical.



EASY TO USE

- Place the product directly into the kiln where temperature measurement is desired.
- No measurements are necessary before using.
- After firing, remove and mark the TempCHEK for identification.
- Use the Orton Measuring Gauge* to record the width of each piece to nearest 0.01 mm.
- Use the Temperature Equivalent Table supplied by Orton to convert each fired width into an equivalent temperature. Temperatures are for a one hour hold.
- Use the correction Factor Chart to determine a correction for hold times less than or more than one hour. Charts are available in °C or °F.
(or Vernier caliper with an accuracy of 0.01 mm)

Temperature Conversion Chart

(Example of a portion of a chart in °C)

A chart is supplied for each batch of TempCheks)

mm	temp (c)	mm	temp (c)	mm	temp (c)
37.75	1087.8	37.35	1120.9	36.95	1144.4
37.74	1088.7	37.34	1121.6	36.94	1144.9
37.73	1089.6	37.33	1122.3	36.93	1145.4
37.72	1090.5	37.32	1123	36.92	1145.8
37.71	1091.4	37.31	1123.7	36.91	1146.2
37.7	1092.3	37.3	1124.4	36.9	1146.7
37.69	1093.2	37.29	1125.1	36.89	1147.1
37.68	1094.1	37.28	1125.7	36.88	1147.5
37.67	1095	37.27	1126.4	36.87	1148
37.66	1095.9	37.26	1127.1	36.86	1148.4
37.65	1096.7	37.25	1127.7	36.85	1148.8
37.64	1097.6	37.24	1128.4	36.84	1149.2
37.63	1098.5	37.23	1129	36.83	1149.6
37.62	1099.3	37.22	1129.7	36.82	1150
37.61	1100.2	37.21	1130.3	36.81	1150.3
37.6	1101.1	37.2	1130.9	36.8	1150.7
37.59	1101.9	37.19	1131.5	36.79	1151.1
37.58	1102.8	37.18	1132.1	36.78	1151.5
37.57	1103.6	37.17	1132.8	36.77	1151.8
37.56	1104.5	37.16	1133.4	36.76	1152.2
37.55	1105.3	37.15	1133.9	36.75	1152.5
37.54	1106.1	37.14	1134.5	36.74	1152.9
37.53	1106.9	37.13	1135.1	36.73	1153.2
37.52	1107.8	37.12	1135.7	36.72	1153.6
37.51	1108.6	37.11	1136.3	36.71	1153.9
37.5	1109.4	37.1	1136.8	36.7	1154.3
37.49	1110.2	37.09	1137.4	36.69	1154.6
37.48	1111	37.08	1137.9	36.68	1154.9
37.47	1111.8	37.07	1138.5	36.67	1155.2
37.46	1112.6	37.06	1139	36.66	1155.5
37.45	1113.4	37.05	1139.5	36.65	1155.8
37.44	1114.1	37.04	1140	36.64	1156.1
37.43	1114.9	37.03	1140.6	36.63	1156.4
37.42	1115.7	37.02	1141.1	36.62	1156.7
37.41	1116.4	37.01	1141.6	36.61	1157
37.4	1117.2	37	1142.1	36.6	1157.3
37.39	1117.9	36.99	1142.5	36.59	1157.6
37.38	1118.7	36.98	1143	36.58	1157.9
37.37	1119.4	36.97	1143.5	36.57	1158.2
37.36	1120.1	36.96	1144	36.56	1158.5

Ordering Information

TempCHEKs are packaged 1000 pcs per case

LoTemp TempCHEK	Part No. P902500 LTS
MedTemp TempCHEK	Part No. P902600 MTS
HiTemp TempCHEK	Part No. P902700 HTS
TempCHEK Measuring Gauge	Part No. K174

QUALITY MAKES A DIFFERENCE

TempCHEK is a high quality product that is excellent for Quality Assurance programs. It gives less variation than other shrinkage products. Orton uses standardized materials and process procedure. All temperatures given in the tables and graphs are developed using thermocouples and measuring gauges traceable to NIST standards. TempCHEKs are dry pressed instead of plastic formed to better control density, which means less variability between pieces. Each batch is tested to minimize lot to lot variation. These procedures assure accurate reproducible and traceable behavior for all Orton TempCHEKs.

ACCURACY AND REPRODUCIBILITY

Each batch of TempCHEKs is calibrated to maintain batch-to-batch uniformity of the heat work measured based on the conversion temperature or TempCHEK temperature. Although firing atmosphere, firing rate and/or soak time can influence the shrinkage of the TempCHEK, the TempCHEK can discern heat work variation between locations within the setting and day to day variation. TempCHEKs are designed to give reproducible heat work measurements and provide critical information on the uniformity and reproducibility of the firing process.

The TempCHEK was designed to provide a relative measurement of temperature and should not be considered a thermocouple calibration device. However, a change in heat work measured by a TempCHEK may indicate a drift in the accuracy of the controlling thermocouples.



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