



Surface Temperature Measurement



Accurate indication. Reliable results.™

Since 1938, Tempil® has been a leader in the development of innovative and accurate temperature indication technology for multiple markets. Our cost-effective solutions can monitor your supply chain, check critical temperatures in the manufacturing process or ensure a products' performance in the field.

With our Tempil products, we have utilized advanced and reliable indication and prevention technology, to produce a range of surface temperature products that allow for safe and versatile surface measurements. Cost-efficient, easy-to-use, and available in multiple formats to meet your specific application needs. Tempil is delivering the surface measurement solutions you can count on, when you need them most.



Over 1 million quality-tested, superior welds

An inexpensive alternative for surface temperature measurement, Tempilstiks are easy-to-use with no gauges or electronics and no calibration required. Available in over 100 temperature ratings from 100°F to 2000°F (38°C to 1093°C), each Tempilstik is supplied with a unique slip-resistant metal holder, specifically engineered for smooth operation and maximum user control. Tempilstiks are precise even for the most critical jobs and meet the preheat temperature requirements of AWS D1.1 and other welding code specifications.

Superior Quality Welds

- Exceeds industry standards delivering products free of sulfur, lead, and halogen contaminants.
- Composed of high-quality materials that are advantageous to the welding process.
- 70 year track record meeting WPS, WPQR, and WPQ requirements.

Increased Efficiency

- Faster results reduce set up and downtime.
- Reliable in the most extreme welding environments.
- Unique slip-resistant aluminum holder secures stick and maximizes control.

Have Greater Confidence

- Secure supply chain and experienced distribution network.
- Prequalified – meets AWS D1.1, ASME Code Sec. I, III, and VIII, ANSI/ASME Code B31.1 and B31.3.
- Consistent traceability – each Tempilstik is marked by temperature, lot number, and is NIST traceable.

Know the Right Temperature

- Easy to understand visual melt identifies results +/- 1% of rated temperature.
- Reduce the danger of crack formation and shrinkage stress.
- Less likelihood of distortion and hard zones near the weld area.
- Promotes hydrogen diffusion from steel.

Applications

- Preheating
- Annealing
- Stress relieving
- Interpass heat treatment
- Post heating
- And many more...

How to Use

Touch the heated surface with the Tempilstik and it will melt, making a distinct mark once the surface reaches the rated temperature.



IRT-16 Infrared Thermometer

The Tempil IRT-16 Infrared Thermometer is the industry's most advanced, non-contact, infrared technology-based surface temperature measurement device. The lightweight and compact Tempil IRT-16 is easy-to-use and engineered to provide superior accuracy and consistency in surface temperature measurement for a wide range of non-conventional surface temperature measurement applications. The Tempil IRT-16 Infrared Thermometer will accurately measure temperatures in a range from -76°F to 1157°F (-60°C to 625°C), and its easily adjustable emissivity, combined with laser targeting and a 16:1 distance to spot ratio, allows for greater precision over a variety of applications. IRT-16 can be easily converted to a contact measurement device by using K-Type thermocouple (available on request).



The Tempil IRT-16 infrared gun housing is molded of high-impact material to stand up to the everyday rigors of the job site. The IRT-16 is ergonomically designed for ease-of-use, its backlit digital display is easy to read in virtually any light condition, and it comes with a heavy-duty nylon holster for easy carrying and protection.

Applications

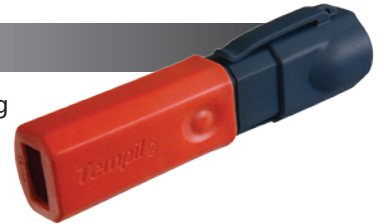
- 16:1 distance to spot ratio
- Ergonomic hand grip
- Heavy-duty nylon holster case
- Four-digit backlit dual display
- °C or °F selectable readout
- Electronic trigger lock for continuous measurement
- Adjustable emissivity
- Min/Max/Avg and differential temperature modes
- Built-in jack for K-Type thermocouple probe to allow direct contact measurement
- NIST Certification is available

Welding and metal fabrication
 Metal processing applications, such as preheating, annealing or stress relief
 Hot metal forming operations, such as roll stands or forging
 Non-stationary surfaces associated with conveyors or processing lines
 Hot and/or dangerous liquid and associated handling system components
 Electrical equipment, high-voltage components and other electric utility applications
 Difficult to reach internal machine components, bearing housings, motors and other plant maintenance applications

New No.	Old No.	Item Description
24200	IRT-16	IRT16 INFRARED THERMOMETER
24201	IRT-16NIST	IRT16 INFRARED THERMOMETER-NIST CERTIFIED
24202	IRT-T	IRT16 K-PROBE THERMOCOUPLE

Estik™ Electronic Surface Thermometer

Engineered for a wide range of critical temperature monitoring applications, our patent-pending Estik™ incorporates the latest in micro-thermocouple technology with a bold digital readout to instantly display the surface temperature with an accuracy of +/- 2%. Measuring surface temperature from 32°F to 999°F (0°C to 537°C), Tempil Estik can be used on polished or non-polished surfaces. Unlike other types of electronic technology, it is not necessary to know what the emissivity of the surface material is in order to obtain an accurate reading.



- Ergonomic hand grip
- Three-digit backlit display
- °C or °F selectable readout
- No wires or cables
- Automatic shut-off

Applications

Solid stationary surface
 Pipeline construction, pressure and non-pressure
 Oil rig fabrication
 Critical welding and metal fabrication applications
 Industrial maintenance, motor and bearings housings

New No.	Old No.	Item Description
24290	ESTIKL	ELECTRONIC TEMPILSTIK KIT
24251	ESTIK-NIST	ELECTRONIC TEMPILSTIK - NIST CERTIFIED
24252	ESTIK-T	ESTIK THERMOCOUPLE BAND REPLACEMENT



Combined Fahrenheit/Celsius Tempilstik®

New No.	Old No.	°F	°C	New No.	Old No.	°F	°C	New No.	Old No.	°F	°C
28000	TS0100/TSC0038	100	38	28026	TS0300/TSC0149	300	149	28341	TS0572/TSC0300	572	300
28300	TS0104/TSC0040	104	40	28318	TS0302/TSC0150	302	150	28046	TS0575/TSC0302	575	302
28002	TS0109/TSC0043	109	43	28027	TS0306/TSC0152	306	152	28047	TS0600/TSC0316	600	316
28004	TS0119/TSC0048	119	48	28319	TS0311/TSC0155	311	155	28342	TS0608/TSC0320	608	320
28301	TS0122/TSC0050	122	50	28028	TS0313/TSC0156	313	156	28048	TS0650/TSC0343	650	343
28005	TS0125/TSC0052	125	52	28320	TS0320/TSC0160	320	160	28343	TS0662/TSC0350	662	350
28302	TS0131/TSC0055	131	55	28029	TS0325/TSC0163	325	163	28049	TS0700/TSC0371	700	371
28303	TS0140/TSC0060	140	60	28321	TS0329/TSC0165	329	165	28050	TS0750/TSC0399	750	399
28006	TS0150/TSC0066	150	66	28322	TS0338/TSC0170	338	170	28345	TS0752/TSC0400	752	400
28304	TS0158/TSC0070	158	70	28030	TS0344/TSC0173	344	173	28051	TS0800/TSC0427	800	427
28007	TS0163/TSC0073	163	73	28323	TS0347/TSC0175	347	175	28052	TS0850/TSC0454	850	454
28305	TS0167/TSC0075	167	75	28031	TS0350/TSC0177	350	177	28347	TS0860/TSC0460	860	460
28008	TS0169/TSC0076	169	76	28324	TS0356/TSC0180	356	180	28053	TS0900/TSC0482	900	482
28009	TS0175/TSC0079	175	79	28032	TS0363/TSC0184	363	184	28349	TS0932/TSC0500	932	500
28306	TS0176/TSC0080	176	80	28325	TS0374/TSC0190	374	190	28055	TS0950/TSC0510	950	510
28010	TS0182/TSC0083	182	83	28033	TS0375/TSC0191	375	191	28056	TS1000/TSC0538	1000	538
28307	TS0185/TSC0085	185	85	28326	TS0383/TSC0195	383	195	28057	TS1022/TSC0550	1022	550
28011	TS0188/TSC0087	188	87	28034	TS0388/TSC0198	388	198	28350	TS1040/TSC0560	1040	560
28308	TS0194/TSC0090	194	90	28327	TS0392/TSC0200	392	200	28058	TS1050/TSC0566	1050	566
28012	TS0200/TSC0093	200	93	28035	TS0400/TSC0204	400	204	28059	TS1100/TSC0593	1100	593
28309	TS0203/TSC0095	203	95	28328	TS0410/TSC0210	410	210	28351	TS1112/TSC0600	1112	600
28013	TS0206/TSC0097	206	97	28036	TS0413/TSC0212	413	212	28060	TS1150/TSC0621	1150	621
28310	TS0212/TSC0100	212	100	28329	TS0419/TSC0215	419	215	28352	TS1157/TSC0625	1157	625
28014	TS0213/TSC0101	213	101	28037	TS0425/TSC0218	425	218	28061	TS1200/TSC0649	1200	649
28015	TS0219/TSC0104	219	104	28330	TS0428/TSC0220	428	220	28062	TS1250/TSC0677	1250	677
28016	TS0225/TSC0107	225	107	28331	TS0437/TSC0225	437	225	28355	TS1292/TSC0700	1292	700
28312	TS0230/TSC0110	230	110	28332	TS0446/TSC0230	446	230	28063	TS1300/TSC0704	1300	704
28313	TS0239/TSC0115	239	115	28039	TS0450/TSC0232	450	232	28064	TS1400/TSC0760	1400	760
28314	TS0248/TSC0120	248	120	28333	TS0455/TSC0235	455	235	28065	TS1450/TSC0788	1450	788
28019	TS0250/TSC0121	250	121	28040	TS0463/TSC0239	463	239	28066	TS1500/TSC0816	1500	816
28020	TS0256/TSC0124	256	124	28041	TS0475/TSC0246	475	246	28067	TS1550/TSC0843	1550	843
28315	TS0257/TSC0125	257	125	28336	TS0482/TSC0250	482	250	28068	TS1600/TSC0871	1600	871
28021	TS0263/TSC0128	263	128	28042	TS0488/TSC0253	488	253	28069	TS1650/TSC0899	1650	899
28316	TS0266/TSC0130	266	130	28043	TS0500/TSC0260	500	260	28070	TS1700/TSC0927	1700	927
28022	TS0269/TSC0132	269	132	28338	TS0518/TSC0270	518	270	28072	TS1800/TSC0982	1800	982
28023	TS0275/TSC0135	275	135	28044	TS0525/TSC0274	525	274	28073	TS1900/TSC1038	1900	1038
28317	TS0284/TSC0140	284	140	28339	TS0536/TSC0280	536	280	28074	TS1950/TSC1066	1950	1066
28024	TS0288/TSC0142	288	142	28045	TS0550/TSC0288	550	288	28075	TS2000/TSC1093	2000	1093
28025	TS0294/TSC0146	294	146	28340	TS0554/TSC0290	554	290				

*Please note that the color of the Tempilstiks are not a part of their function, since the temperature signal consists of melting. Indicator color is subject to change without notice.

Tempstik® Test Kit

Provides all the information needed for determining the proper temperatures for welding, heat treating, soldering, brazing, and other operations involved in the fabrication of most metals. In addition, the kit provides information for measuring preheat, interpass and postweld heat treatment temperatures.

The kit contains: 20 temperature indicators systematically spaced between 125°F (52°C) and 800°F (427°C).



Available Temperatures*

°F	°C	°F	°C	°F	°C
125	52	300	149	475	246
150	66	325	163	500	260
175	79	350	177	550	288
200	93	375	191	600	316
225	107	400	204	700	371
250	121	425	218	800	427
275	135	450	232		

Applications

Surface welding
 Hard facing
 Torch or flame cutting treating
 Overlaying for corrosion resistance
 Heat treating
 Pipe bending
 Die repair welding

New No.	Old No.
28600	TSTK TEMPILSTIK TEST KIT (125°F TO 800°F)

Tempilaq® G Indicating Liquids



Optimal for cold and/or smooth surfaces, Tempilaq G Indicating Liquid is a quick, easy, and cost-effective method to verify the achievement of a specific temperature on a wide range of surfaces under dynamic conditions. When applied to a surface, Tempilaq quickly dries and forms a dull and opaque film. The film liquefies when heat is applied to that surface and the rated temperature is reached. As the surface cools, the liquefied Tempilaq re-solidifies to leave a distinctly different mark, confirming that the target temperature has indeed been achieved.

- 43 different temperature ratings from 175°F to 1900°F (79°C to 1038°C)
- Reliably accurate – melts within $\pm 1\%$ of rated temperature
- Easy to apply quick-drying fluid
- Non-flammable for maximum safety and unrestricted shipment
- Certification available upon request
- Numbered production lot for traceability

Applications

Thermal mapping on multiple surfaces
 Calibrating brake calipers
 Wave soldering PC boards
 Dielectric heat sealing
 Post-forming plastic laminate
 Annealing polished metal surfaces
 Calculating glass temperatures at various heating stages
 Calibrating industrial ovens

Fahrenheit/Celsius Ratings for Tempilaq G - 2 oz.

New No.	Old No.	°F	°C
24400	TL0175-2 oz	175	79
24401	TL0200-2 oz	200	93
24402	TL0225-2 oz	225	107
24403	TL0250-2 oz	250	121
24404	TL0275-2 oz	275	135
24405	TL0300-2 oz	300	149
24406	TL0313-2 oz	313	156
24407	TL0325-2 oz	325	163
24408	TL0350-2 oz	350	177
24409	TL0363-2 oz	363	184
24410	TL0375-2 oz	375	191
24411	TL0400-2 oz	400	204
24412	TL0425-2 oz	425	218
24413	TL0450-2 oz	450	232

New No.	Old No.	°F	°C
24414	TL0475-2 oz	475	246
24415	TL0488-2 oz	488	253
24416	TL0500-2 oz	500	260
24417	TL0525-2 oz	525	274
24418	TL0550-2 oz	550	288
24419	TL0575-2 oz	575	302
24420	TL0600-2 oz	600	316
24421	TL0650-2 oz	650	343
24422	TL0700-2 oz	700	371
24423	TL0750-2 oz	750	399
24424	TL0800-2 oz	800	427
24425	TL0850-2 oz	850	454
24426	TL0900-2 oz	900	482
24427	TL0950-2 oz	950	510

New No.	Old No.	°F	°C
24428	TL1000-2 oz	1000	538
24429	TL1022-2 oz	1022	550
24430	TL1050-2 oz	1050	566
24431	TL1100-2 oz	1100	593
24432	TL1150-2 oz	1150	621
24433	TL1200-2 oz	1200	649
24434	TL1250-2 oz	1250	677
24435	TL1300-2 oz	1300	704
24436	TL1400-2 oz	1400	760
24437	TL1450-2 oz	1450	788
24438	TL1500-2 oz	1500	816
24439	TL1600-2 oz	1600	871
24440	TL1700-2 oz	1700	927
24441	TL1800-2 oz	1800	982
24442	TL1900-2 oz	1900	1038

Fahrenheit/Celsius Ratings for Tempilaq G - Quart

New No.	Old No.	°F	°C
24550	TL0175QT	175	79
24551	TL0225QT	225	107
24552	TL0325QT	325	163
24553	TL0350QT	350	177
24554	TL0375QT	375	191
24555	TL0475QT	475	246
24556	TL0650QT	650	343
24557	TL0700QT	700	371
24558	TL0750QT	750	399
24559	TL0800QT	800	427

New No.	Old No.	°F	°C
24560	TL0850QT	850	454
24561	TL0900QT	900	482
24562	TL0950QT	950	510
24563	TL1000QT	1000	538
24564	TL1050QT	1050	566
24565	TL1100QT	1100	593
24566	TL1150QT	1150	621
24567	TL1200QT	1200	649
24568	TL1250QT	1250	677

Tempilaq Thinner

New No.	Old No.
24597	TLTHG
	TEMPILAQ THINNER - 2 OZ.
24598	TLTHGPT
	TEMPILAQ THINNER - PINT

Temp-Alarm® Time/Temperature Signaling Paint

Temp-Alarm is a temperature-sensitive paint that signals over-heating by a dramatic color change at the pre-determined critical temperature. Standard Temp-Alarm paints are quick-drying, silicone coatings. Each coating has a unique time/temperature relationship. Laboratory derived time/temperature curves are available for each type, by request.

Applications

Monitor erosion and breakdown of refractory linings
 Temperature profiles on engines
 Aluminum specialty gas cylinders
 Verifying heat treatment of parts

The following color changes can be expected after a 5-minute heating period at the transition temperature

Temp-Alarm	Starting Color	Transition Temp.	Ending Color
13C	Blue	310°F (154°C)	Gray-black
18	Gold	490°F (254°C)	Rust-brown

New No.	Old No.
24600	TA13C-5GL
	TEMPALARM 13C - 5 GALLON
24601	TA13CGL
	TEMPALARM 13C - GALLON
24602	TA18-5GL
	TEMPALARM 18 - 5 GALLON
24603	TA18GL
	TEMPALARM 18 - 1 GALLON
24604	TATHN-1GL
	TEMPALARM THINNER - 1 GALLON

Bloxide® Weldable Primer

Bloxide is a versatile, rust-preventive, weldable primer with a unique formula that can be applied to a wide range of metals, preventing the formation of rust and corrosion during extended periods of storage. Bloxide eliminates the need to clean metal surfaces before welding due to its enhanced corrosion preventative features, thus saving time and labor costs during fabrication. Bloxide is a completely weldable primer, also improving the weld quality after application, resulting in X-Ray quality welds.



- Ideal for extended periods of outside steel storage
- Ability to strike welding arc without removal
- Temperature resistant to 800°F (427°C)
- Aluminized finish
- Can be sprayed, brushed or parts can be dipped into it

Applications

Marine and offshore metal fabrication
 Almost all steels
 Primer for paints and coatings

New No.	Old No.	Item Description
24100	BL4GL	1 GALLON [BOX OF 4]
24101	BL55GL	55 GALLON DRUM
24102	BL5GL	5 GALLON PAIL
24104	BLAR	AEROSOL CAN 12 OZ
24105	BLGL	1 GALLON

Pyromark® Silicone-based, high-temperature coating

Pyromark is a silicone-based coating that is specifically formulated for protecting, decorating or color identifying metal surfaces that will be subjected to high temperatures. Pyromark provides long-lasting protection against oxidation and corrosion, and has excellent coverage characteristics with no blistering, chipping, cracking or peeling at rated temperatures.



- Delivers multiple benefits to wide range of metal products
- Specifically designed for the space program and solar applications
- Solar absorption rate of 0.95 makes it an almost perfect black box absorber
- Improves heat transfer in infrared heating applications due to its high-emission properties
- Standard packaging: gallons, 5 gallon pails, 55 gallon drums

Applications

Solar Absorbers
 Infrared Heaters/Boilers/Furnaces
 Ovens/Fireplace Accessories
 Mufflers/boat and auto engines
 Radiators/Stoves

New No.	Old No.	Item Description	Color
25000	PK12CHM55GL	PYROMARK 1200 - 55 GALLON DRUM	CHARCOAL METALLIC
25001	PK12FBLK5GL	PYROMARK 1200 - 5 GALLON	FLAT BLACK
25002	PK12FBLKGL	PYROMARK 1200 - 1 GALLON	FLAT BLACK
25008	PK25FBLK55GL	PYROMARK 2500 - 55 GALLON DRUM	FLAT BLACK
25009	PK25FBLK5GL	PYROMARK 2500 - 5 GALLON	FLAT BLACK
25010	PK25FBLKGL	PYROMARK 2500 - 1 GALLON	FLAT BLACK
25003	PK12MAL55GAL	PYROMARK 1200 - 55 GALLON DRUM	METALLIC ALUMINUM
25005	PK12SBLK55GL	PYROMARK 1200 - 55 GALLON DRUM	SATIN BLACK
25007	PK12STST55GL	PYROMARK 1200 - 55 GALLON DRUM	STAINLESS STEEL
25011	PKTHG12	PYROMARK 1200 THINNER - 1 GALLON	
25012	PKTHG25	PYROMARK 2500 THINNER - 1 GALLON	

Anti-Heat® Heat Absorbing Compound

Anti-Heat, an exceptional heat-absorbing compound, is specially formulated to eliminate heat damage and discoloration, which often occurs on light gauge metals during fabrication. Once applied, Anti-Heat prevents the heat generated by welding, soldering or preheating from traveling beyond where the Anti-Heat is applied – thus preventing heat related damages such as buckling, cracking, warping or other metal distortions from occurring.

- Non-toxic
- Harmless to the skin
- Asbestos-free and odorless
- Adheres to horizontal, vertical and overhead surface

New No.	Old No.	Item Description
24000	AH5GL	5 GALLON
24001	AHGL	1 GALLON
24002	AHQT	1 QUART
24003	AHTB	12 OZ. TUBE



LA-CO Industries, Inc.
 1201 Pratt Blvd. • Elk Grove Village, IL 60007
 800-621-4025 • 847-956-7600 • Fax: 847-956-9885
 tempil.com • email: customer_service@laco.com



ISO 9001:2008
 FM 37044

LP97R00245 © 2013 LA-CO Ind. Inc.