



TEMPERATURE INDICATORS PROTECTIVE COATINGS



Tempil® manufactures fusible temperature indicators which are sold as sticks, liquid, pellets and self-adhesive labels. Tempil's industrial melting point standards are simple, reliable and guaranteed accurate within 1%. Tempilstik® technology was developed to meet the demand for measuring surface temperatures during preheat, interpass and postweld heat treatment temperatures. When the Tempilstik mark melts ... the temperature has been reached. Nothing could be simpler. Over 100 temperature ratings available between 100° F (38° C) and 2500° F (1371° C). Lot numbered for NIST traceability in accordance with ISO 10012-1.

How to Use

When working below 700° F (371° C) on relatively rough surfaces, where prolonged heating is not required, the simplest method is to mark the workpiece before heating begins. The dry opaque Tempilstik® mark will change to a distinct melted mark; this phase change will occur when the temperature rating of the selected Tempilstik® has been reached.

CAUTION - Disregard any colour change that may occur during heating. This has no significance. It is only the melting of the Tempilstik® mark that indicates when the rated temperature has been reached.

At temperatures above 700° F (371° C) or under prolonged heating, the Tempilstik® mark may evaporate or be absorbed. Under these conditions, stroke the workpiece with the selected Tempilstik® from time to time during the heating operation. When the rated temperature has been reached, it will leave a liquid smear. This method should also be used if a smooth surface is involved, where the hard Tempilstik® chalk will not leave a mark. (If it is necessary to mark a smooth surface before heating, use Tempilaq®.)

Cleaning

For temperature ratings of 650° F (343° C) or below, the Tempilstik® mark can be removed (if it has not been charred) with alcohol or water; for ratings above 650° F (343° C), use water only. If the mark has been heated well above the rated temperature and has become charred, an abrasive procedure may be required.

Applications

A few of the hundreds of uses for Tempilstik® temperature indicators include:

Determining surface temperatures during welding and metal fabrication including preheat, interpass, postweld heat treatment, annealing and stress relieving.

Determining operating temperatures of bearings, transformers, steam traps, molds, PC board preheaters, motors, electronic components, hydraulic systems, commercial irons, hot plates & heat exchangers.

Standard Packaging

Tempilstik® temperature indicators are 5" long and come in adjustable aluminum holders with pocket clip. 10 indicators per box. Bar-coded per NWSA guidelines. Weighs approx. ½ lb. per box of 10.

Tempilstik®, Tempilaq® and Tempil® Pellets are available in the following temperatures:
All indicators are identified in both Fahrenheit and their corresponding celsius ratings.

FAHRENHEIT RATINGS							
°F	°C	°F	°C	°F	°C	°F	°C
100	38	256	124	500	260	1500	816
103	39	263	128	525	274	1550	843
106	41	269	132	550	288	1600	871
109	43	275	135	575	302	1650	899
113	45	282	139	600	316	1700	927
119	48	288	142	650	343	1750	954
125	52	294	146	700	371	1800	982
131	55	300	149	750	399	1850	1010
138	59	306	152	800	427	1900	1038
144	62	313	156	850	454	1950	1066
150	66	319	159	900	482	2000	1093
156	69	325	163	932	500	2050	1121
163	73	331	166	950	510	2100	1149
169	76	338	170	977	525	2150	1177
175	79	344	173	1000	538	2200	1204
182	83	350	177	1022	550	2250	1232
188	87	363	184	1050	566	2300	1260
194	90	375	191	1100	593	2350	1288
200	93	388	198	1150	621	2400	1316
206	97	400	204	1200	649	2450	1343
213	101	413	212	1250	677	2500	1371
219	104	425	218	1300	704		
225	107	438	226	1350	732		
231	111	450	232	1400	760		
238	114	463	239	1425	774		
244	118	475	246	1450	788		
250	121	488	253	1480	804		

For people working in metric that prefer round number Celsius ratings, Tempilstiks® are available in even numbered "celsius" ratings as well. Call for an up to date list.

Part No.	Description
TS-temp	Tempilstik® (State Temperature)

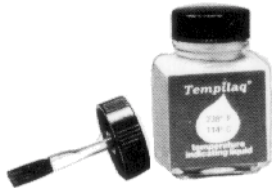


Tempilstik[®] Welding Code Kit

Includes: Welding code requirements • Preheat and Interpass temperature specifications • Certified chemical analysis to MIL-SPEC. Also included are 10 temperature indicators spaced between 125° F (52° C) and 450° F (232° C). They include all preheat melting point temperatures needed to meet requirements of AWS D1.1 Structural Welding Code for Steel; ASME Code, Section I, Power Boilers; Section III, Nuclear Components; and Section VIII, Unfired Pressure Vessels; ANSI/ASME Code B31.1, Power Piping; and B31.3, Chemical Plant and Petroleum Refinery Piping.



Part No.	Description
TWCK	Welding Code Kit



Tempilaq[®] is made of the same material as Tempilstik[®]. This material is suspended in a quick-drying, inert vehicle. Most are non-flammable. Tempilaq[®] is available in the same 102 temperature ratings as Tempilstik[®] and carries the same 1% accuracy. Lot numbers on each bottle allow it to be traced to the specific batch of raw material from which it was made.

How to Use

Apply a thin coating of the appropriate Tempilaq[®] by brush to the workpiece before heating begins. It dries almost instantly to a dull opaque mark. When its specified temperature is reached, the Tempilaq[®] mark liquefies (melts) sharply.

CAUTION - Disregard any colour change that may occur during heating. This has no significance. It is only the melting of the Tempilaq[®] mark that indicates when the rated temperature has been reached.

Upon cooling, the melted Tempilaq[®] mark will solidify to a glossy-transparent appearance. Tempilaq[®] can be diluted to any desired consistency without changing its melting point. The thinner the coating used, the quicker the reaction time will be when the temperature has been reached. Use only Tempilaq[®] thinner, and only the thinner recommended for the specific temperature rating being used.

Cleaning Use the same procedure as for Tempilstik[®].

Part No.	Description
TL-temp	2 oz. bottle with brush (State Temperature)

Applications

Tempilaq[®] should be used on surfaces which cannot be easily marked with a Tempilstik[®], such as polished metal, glass, plastic, rubber, fabrics or electronic components. It should also be used for making larger marks than can conveniently be made with Tempilstik[®] (for viewing at a distance). It is widely used for monitoring critical temperatures in the electronics field, such as preheat temperatures for wave soldering. Other applications include dielectric heatsealing, postforming plastic laminate, and annealing polished metal surfaces.



Bloxide[®] is a weldable rust preventative that insures x-ray quality welds. The aluminized coating acts as an oxygen barrier that protects against rust. It also forms aluminum oxide in the weld puddle which reduces porosity and pinholing.

The use of Bloxide[®] eliminates recleaning of sub assemblies prepared for welding even after they have been in outside storage for several months. It is an excellent weldable primer paint, and leaves no objectionable residue or slag. Bloxide[®] is free of lead, sulfur, zinc, cadmium, mercury, chlorine or other halogens which make it safe for the nuclear fabrication industry. It will also withstand temperatures up to 800° F.

How to Use

Bloxide[®] can be applied by brush or spray. It requires no special training, equipment, or precautions for effective application. Bloxide[®] is quick drying, forming a tack-free, tenacious film in minutes. Coverage is approx. 800-1000 sq. ft. per gallon.

Typical Applications

Bloxide[®] can be advantageously used on all steels, and is compatible with most welding processes. It should be considered for x-ray quality work.

Part No.	Description
BLAR	13 oz. aerosol
BLQT	1 quart can
BLGL	1 gallon can

Anti-Heat[®] is a protective heat-sink compound that confines heat to the welding, brazing, or soldering zone, protecting adjacent areas from undesirable heat build-up. It minimizes risk of heat damage, prevents discoloration, warping, buckling or other distortion of light-gauge metals.

How to Use

Anti-Heat[®] is easy to apply. Simply spread it on right from the can. Tube will fit standard caulking gun. It is harmless to the skin, odourless, non-toxic, and will not stain the base metal. To clean, just wipe off excess and wash with water.

Typical Applications

Anti-Heat[®] can be used effectively to protect thin gauge metals from objectionable heat inflow due to welding, brazing, soldering or other heat sources.



Part No.	Description
AHTB	12 oz. tube
AHQT	1 quart can
AHGL	1 gallon can

Other Tempil products available, including Tempil Pellets, TempilLabels, Temp-Alarm and High Temperature Paint. Call for information.



“There's Always Another Use”

DISPLACES MOISTURE

WD-40 is formulated for ultra high surface attraction to metal. It completely covers surfaces, including microscopic irregularities, even in the presence of moisture. In fact, WD-40 goes under surface moisture and establishes a protective barrier between the moisture and the parent metal. WD-40 is a non-conductor of electricity and quickly eliminates moisture-induced short circuits.

PENETRATES

WD-40's ultra-high surface attraction results in a super penetrating action that loosens rust-to-metal bonds and frees stuck, frozen, or rusted metal parts. The lubricating properties of WD-40 then keeps these parts working freely.

PROTECTS

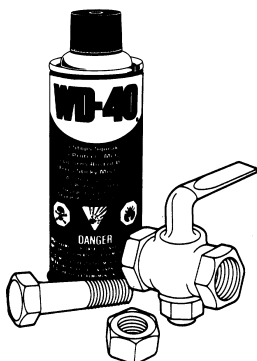
WD-40 deposits corrosion-resistant ingredients over the entire surface area, including microscopic irregularities. This protective barrier shields against moisture and other corrosive elements. WD-40's moisture-displacement capability also precludes the possibility of a small moisture pocket causing future problems.

CLEANS

WD-40's ultra-high surface attraction enables it to get under dirt, grime, caked grease and oil to clean the surface at the same time it forms a corrosion-resistant barrier. It also dissolves most adhesives, allowing for easy removal of labels and excess bonding material.

LUBRICATES

WD-40's ultra-high surface attraction assures the lubricating ingredients in WD-40 will be widely dispersed and tenaciously held to all moving parts. WD-40 contains no silicone or other additives that attract dust and dirt causing a buildup of gummy, greasy residues. For heavy duty lubrication use T•A•L 5 Extra-Strength Lubricant (see reverse of this page).



WD-40 penetrates to loosen rusted parts.



WD-40 protects and lubricates tools.



WD-40 cleans to free sticky parts.



WD-40 displaces moisture to prevent electrical problems.

INTRODUCING T•A•L 5™

The New Extra-Strength Lubricant From The Makers Of WD-40®

Finally, a spray lubricant for heavy-duty applications. T•A•L 5. Extra-strength and long-lasting. T•A•L 5 contains a triple-additive formula that resists breakdown due to corrosion, friction, temperature, load and motion. Applied to metal, rubber or plastic, it provides long-lasting film strength and durability, which can ultimately help prolong the life of the equipment.

T•A•L 5, with CO2 propellant and a flash point over 100° C, is safe to use. With no CFCs or VOCs, it's safe for the environment, too. And, T•A•L 5 has a spray-all-ways valve for hard to reach places and a handy notch in the cap to hold the spray tube.

Best of all, T•A•L 5 is from WD-40 Company. So now you can count on multi-purpose WD-40 for cleaning, penetrating, protecting, rust prevention, and light lubrication, as well as T•A•L 5 for extra-tough lubrication jobs.

WD-40 and T•A•L 5. We've got you covered.



T•A•L 5 is ideal for a variety of applications, including:

- Assemblies
- Bushings
- Cables
- Chains
- Cogs
- Conveyers
- Cranks
- Fasteners
- Hinges
- Hubs
- Hydraulics
- Linkages
- Lugs
- Pulleys
- Sliding Tracks
- Threads
- Valves
- Winches
- Wire Rope