

2013 Food Code Spec Sheet

SANITIZATION: CONCENTRATION, pH, TEMPERATURE, HARDNESS AND CONTACT TIME			
Minimum Concentrations ppm or mg/L	pH ≤ 10.0 & minimum Temperature	pH≤ 8.0 Minimum Temperature	Contact Time
Chlorine 25	120°F (49°C)	120° F (49°C)	≥10 seconds
Chlorine 50	100°F (38°C)	75° F (24°C)	≥7 seconds
Chlorine 100	55°F (13°C)	55° F (13°C)	≥10 seconds
Iodine ≥ 12.5 to 25	pH ≤ 5.0 or per label; ≤ 75° F (24°C)		≥ 30 seconds
Quaternary Ammonium, per label	Water hardness ≤ 500 ppm or mg/L or per label; ≥ 75°F (24°C)		
Hot Water Sanitize, 3 compartment sink w/ integral heating device	≥ 171°F (77°C) immersed in rack or basket for 30 seconds		

NOTE: All chemical sanitizers shall be listed in 40 CFR 180.940 Sanitizing Solutions and used in accordance with the EPA approved Manufacturer's label use instructions or, **for sanitizers generated on-site**, be subject of an effective food contact notification for this purpose and comply with 40 CFR 156 Labeling Requirements for Pesticides and Devices.

WAREWASHING: MECHANICAL AND MANUAL		Minimum Wash Temperature	Minimum Sanitizing Temperature
SPRAY TYPE WAREWASHERS: Single Tank, Hot Water Sanitize	Stationary rack, single temperature	165°F (74°C)	165°F (74°C)
	Stationary rack, dual temperature	150°F (66°C)	180°F (82°C)
	Conveyor, dual temperature	160°F (71°C)	
Multi-tank, Hot Water Sanitize	Conveyor, multi temperature	150°F (66°C)	
Chemical Sanitize	Any warewashing machine	120°F (49°C)	Sanitization levels as stated in the above table or per labeled manufacturer's instructions on the container
3 Compartment Sink	Cleaning agent labeling may permit lower washing temperatures	110°F (43°C)	

MINIMUM COOKING TEMPERATURES AND HOLDING TIME AT SPECIFIED TEMPERATURES

165°F (74°C) for 15 seconds 7 log reduction in microorganisms (or 7D kill)	poultry; wild game animals (live caught or field dressed) <u>STUFFED</u> fish, meat, pork, pasta, poultry or ratites; and <u>STUFFED</u> containing fish, meat, poultry or ratites.
165°F (74°C) with a 2 minute post cooking hold 7D kill	Microwave Cooking for raw animal foods: covered, rotated or stirred throughout or midway through the cooking process, and held for 2 minutes covered.
155°F (68°C) for 15 seconds or 158°F (70°C) for <1 second 150°F (66°C) for 1 minute 145°F (63°C) for 3 minutes 5D kill	ratites; injected meats; <u>COMMINGLED</u> raw animal foods such as fish, ground beef & other meats, commercially raised game animals, exotic animal or rabbits; and <u>RAW SHELL EGGS</u> not prepared for immediate service (combined or hot hold), {also see Highly Susceptible Populations (HSP)}.
145°F (63°C) for 15 seconds 3D kill	raw shell eggs prepared for immediate service; commercially raised game animals, exotic animals or rabbits; and other raw animal foods not otherwise specified in this table.
Surface temperature ≥ 145°F (63°C) + cooked color change on all external surfaces	<u>WHOLE-MUSCLE, INTACT BEEF STEAK</u> that is properly labeled as such may be served undercooked as RTE if not serving a HSP

WHOLE ROASTS OF BEEF, CORNED BEEF, PORK OR CURED PORK

145°F (62.8°C) 4 minutes*	158°F (70.0°C) 0 sec.*	Oven Type	Roast Weight <10 lbs. (4.5 kg)	Roast Weight ≥10 lbs. (4.5 kg)
144°F (62.2°C) 5 minutes*	157°F (69.4°C) 14 sec.*			
142°F (61.1°C) 8 minutes*	155°F (68.3°C) 22 sec.*	Still Dry	≥ 350°F (177°C)	≥ 250°F (121°C)
140°F (60.0°C) 12 minutes*	153°F (67.2°C) 34 sec.*			
138°F (58.9°C) 18 minutes*	151°F (66.1°C) 54 sec.*	Convection	≥ 325°F (163°C)	≥ 250°F (163°C)
136°F (57.8°C) 28 minutes*	149°F (65.0°C) 85 sec.*			
135°F (57.2°C) 36 minutes*	147°F (63.9°C) 134 sec.*	High Humidity¹	≤ 250°F (121°C)	≤ 250°F (121°C)
133°F (56.1°C) 56 minutes*				
131°F (55.0°C) 89 minutes*				
130°F (54.4°C) 112 minutes*				
6.5 D kill				
*Note: holding time may include post-cooking heat rise			¹ Relative humidity > 90% for ≥ 1 hour as measured in the cooking chamber or oven vent, or in a moisture- impermeable bag that provides 100% humidity.	

PLANT FOOD COOKING FOR HOT HOLDING	
135°F (57°C)	Fruits and vegetables that will be hot held shall be cooked to the hot holding temperature of 135°F (57°C)

NON-CONTINUOUS COOKING: Food receiving a non-continuous process requires minimum cooking times and temperatures after cooling or freezing.

REHEATING FOR IMMEDIATE SERVICE: Cooked and refrigerated RTE foods for a consumer's order may be served at any temperature, (i.e. roast beef sandwich au jus).

REHEATING FOR HOT HOLDING: To be completed ≤ 2 hours. Leftovers shall be reheated to at least 165°F (74°C) for 15 seconds {microwave is 165°F (74°C) rotated or stirred, covered, held for 2 minutes}. Remaining unsliced portion of beef or pork roasts cooked as stated in Table 1 above may be reheated with the same initial cooking parameters listed in table 1. Commercially processed, packaged, ready-to-eat (RTE) food shall be reheated to at least 135°F (57°C).

COLD & HOT HOLDING: Cold foods $\leq 41^\circ\text{F}$ (5°C). Hot foods $\geq 135^\circ\text{F}$ (57°C), except beef & pork roasts cooked or reheated as stated above, may be held at 130°F (54°C).

COOLING TCS (PHF) FOOD:

Hot foods: 135°F to 70°F (57°C to 21°C) within 2 hours, and 135°F to 41°F (57°C to 5°C) within 6 hours or less.

Ambient room temperature: cooled to 41°F (5°C) within 4 hours, i.e. Reconstituted foods, canned tuna

COLD RECEIVING: Laws allowing shipping temperatures $\geq 41^\circ\text{F}$ (5°C) for certain products shall be cooled to 41°F (5°C) within 4 hours, *except* that time parameters do not apply to raw shell eggs, which must be immediately placed in refrigeration at 45°F (7°C) or less.

TIME AS A PUBLIC HEALTH CONTROL: Written procedures on site & available to the inspector. The working supply (before cooking) or RTE (for service or display) TCS (PHF) FOODS is marked or identified with the maximum 4 hour, or 6 hour time period when removed from temperature controls. After 4 hours, or 6 hours OR if the product is unmarked or mismarked per time, the food shall be discarded. Procedure may not be used with raw eggs in a HSP facility.

FROZEN FOOD: Temperature necessary to keep product frozen "solid" and varies with product type. **SLACKING:** moderating the temperature.

HANDWASHING FACILITIES: Shall be equipped to provide hot water at 100°F by use of a mixing valve.

TEMPERATURE MEASURING DEVICES – TMDs

1. Metal stem or thermocouple thermometers shall be provided, readily accessible and designed to be easily readable.
2. Food TMDs may not have sensors or stems constructed of glass, *except stems encased in a shatterproof coating such as candy thermometers may be used.*
3. Mechanically refrigerated or hot food storage units: equipped with at least one integral or permanently affixed, easily viewed TMD with sensors or a simulated product temperature shall be located in the warmest part of the refrigeration unit and in the coolest part
4. Warewashing machine TMDs to indicate water temperature in each wash and rinse tank: and entering the hot water sanitizing final rinse manifold or in the chemical sanitizing solution tank, and availability of irreversible registering temperature indicator required.

THAWING OF FROZEN FOODS

1. Under refrigeration $\leq 41^\circ\text{F}$ (5°C);
2. Cook or microwave as part of an uninterrupted cooking process;
3. Submerge under running water $\leq 70^\circ\text{F}$ (21°C) with sufficient velocity and flow to float off loose particles in an overflow, and no portion of RTE food rises above 41°F, OR any raw animal food that will be properly cooked and does not rise above 41°F for more than 4 hours (includes time exposed to running water, preparation and cooling to $\leq 41^\circ\text{F}$).
4. Remove frozen ROP fish from package prior to thawing or immediately after thawing.