

Machine Tempering

Tabletop Tempering Machine

1. Remove the cover from the machine.
2. Adjust set point to 86°-87° F for milk and white chocolate and 87°-88° F for dark chocolate (confirm the temperature probe is accurate).
3. Place approximately one pound of tempered chocolate chunks in the back side of the bowl divider (the side without the temperature probe) and untempered, melted chocolate in the front side of the bowl.
4. To temper chocolate:
 - a. The room must be 73° F or less.
 - b. There must be unrestricted airflow to the machine.
 - c. Untempered chocolate in the front of the bowl must cover the exposed tip of the temperature probe.



Tabletop Tempering Machine (continued)

5. When set point is reached (the cooling fan will turn on and off), the chocolate should be tempered and ready to use in approximately five minutes for dark chocolate and ten minutes for milk and white chocolate. Chocolate is tempered when a thin layer of coating is placed on a knife blade and sets up within five minutes at room temperature.
6. Remove remaining chunks from the back side of the bowl divider.
7. Approximately 10-15 minutes after the chocolate is tempered, the temperature should be increased by $\frac{1}{2}$ -1° F. If the temperature is left at the original set point, the coating will become very thick and over-tempered.
8. As production continues, the final temperature for milk and white chocolate is usually 88-90° F, while dark chocolate is usually 89-91° F. Thick, over-tempered chocolate can usually be cured by increasing the temperature by 1-2° F. Under-tempered chocolate — chocolate that has a slow set-up time — can be solved by decreasing the temperature by 1-2° F and ensuring that tempered chocolate chunks are in the backside of the bowl.
9. Add chunks as needed to the back side of the bowl to replenish chocolate supply. Alternatively, small amounts of 90-92° F untempered liquid chocolate may be slowly fed into the back side of the bowl divider to replenish chocolate supply.
10. Chocolate in the front side of the bowl should never be lower than the temperature probe or heating of the coating will occur and temper will be lost. At end of day, set the temperature to 100-105° F, shut off the bowl rotation, and replace the cover.
11. At end of day, set the temperature to 100-105° F, shut off the bowl rotation, and replace the cover.
 - a. Set the temperature to 105° F for milk and dark chocolate
 - b. Set the temperature to 100° F for white chocolate.

To maintain tempered chocolate in the machine over a longer period of time, place cover over machine to keep the heat inside when not dipping into the bowl.

12. Chunks of chocolate in the back side of the bowl must be in good temper — an exact quantity is not essential, but chunks of chocolate must remain until the cold set point is met (usually 86° F).

Learn more at
www.cargill.com/cocoa-chocolate

For questions about a specific tempering machine please contact the manufacturer.

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