An Introduction to EZtemper Seed Generator

EZtemper is used to produce a stable form of cocoa butter crystals (seed) that can be used to pre-crystallize, i.e., temper:
bean to bar cocoa mass

chocolate
ganache
meltaways
giandujas
coloured cocoa butter

We call this stable form of cocoa butter crystal seeds produced by EZtemper "silk". A small quantity of EZtemper silk can be used to pre-crystallize chocolates, ganaches and other mixtures that benefit from tempering, with beautiful results.

Pre-crystallization of chocolate requires between 0.1 and 1% of the stable form of cocoa butter crystals (beta crystals or

"Form V" crystals) in order to set up with the snap, shine and mouth feel associated with well tempered chocolate.

EZtemper will allow you to consistently provide those stable crystals and allow you to work with the chocolate at a higher temperature than usual to ensure increased fluidity and ease of use.

Unpacking and setting up the EZtemper

When your unit arrives remove it from its cardboard box and set it on a stable surface. Slip it out of its protective plastic.

Please note that the lid of this unit SWINGS. DO NOT LIFT IT or you may damage it!

Unlatch the silicone fastener, SWING open the lid and remove the following items:

2 stainless steel containers with lids A stainless steel rack

A box containing an adapter and cord

Wash and thoroughly dry the stainless cocoa butter containers.

Place the rack inside the unit so it rests on the bottom. Swing the lid closed and fasten it with the silicone fastener.

The power cord attaches to the unit on the underside of the silicone collar on the side opposite to the strap fastener. Pressing down gently on the silicone collar as you insert the plug should lead to a smooth operation.

Once the cord is connected to the unit attach the other end of the cord to the adapter and then plug the adapter into a power outlet. Make sure all connections are secure.

To turn on your unit:

Switch on both the fan switch and the power switch on the top of the unit. A light on the switches will indicate that they are on if power is getting to the unit. Listen for the sound of the fan.

Place a quantity of good quality cocoa butter from a reliable source in one or both of the stainless container(s) supplied with the appliance and put the lid on the container(s). Each container will hold about 170 grams of cocoa butter depending on the cocoa butter format. You may need to chop the cocoa butter into smaller pieces before putting in the container.

If you anticipate requiring larger quantities of cocoa butter silk for your production - add cocoa butter to up to 6 similar sized stainless containers - a set of 2 nesting extra containers are available for a cost of $30 US plus shipping. Contact

info@eztemper.com if you wish to order and I will send you an invoice.

Unlatch the fastener, SWING open the lid and place the container(s) in the EZtemper. SWING the lid closed and fasten the latch. Make sure the unit is turned on.

It may take up to 12 hours for the cocoa butter to attain a silky consistency. When you think it is ready stir the mass to remove any lumps. When there are no more lumps in the cocoa butter and it has reached a silky consistency it is ready to be used.

12 hours is the approximate time needed for the cocoa butter to attain equilibrium in crystalline structure.

Once equilibrium has been reached and your cocoa butter is silky, it can remain in the powered-on unit indefinitely (the unit consumes very little power). This way you always have silk on hand and ready to use.

Adjusting the Temperature of your EZtemper

Cocoa butter will contain a critical percentage of form V crystals when it is between 33 and 34º C. The EZtemper is shipped with a factory set temperature of 33.7 C, an ideal setting for most commercial cocoa butter.

However, it may sometimes be necessary to adjust this factory-set temperature. Cocoa butter from different sources may have different characteristics.

If after 12 hours any lumps have not softened and the cocoa butter has not reached a silky consistency you may need to adjust this temperature UPWARDS by 0.1-0.2°C.

If on the other hand, your cocoa butter silk seems too fluid (noted by melting on the cocoa butter surface) - you may wish to

DECREASE the temperature by 0.1-0.2°C. The cocoa butter already in the unit will not become less fluid - once the crystals are gone they are gone - but the next batch added to the unit will be a more suitable consistency.

To adjust the factory-set temperature:

On the lid you will see a button marked SET and arrows pointing LEFT, DOWN and UP.

Press the SET button once and you will see [SP] appear on the top display. Use the up and down arrows to choose the temperature you wish between 33.0 and 34.0 C. Press the SET button a second time and you will see [Sṛ] - this is a timer function that should remain at 00.00. Press the SET button a third time to apply your settings.

If you accidentally set the timer an alarm will sound when the time is reached - the

unit has been programmed NOT TO SHUT OFF should that happen. To stop the alarm simply press the SET button twice and use the down arrow to return the unit to 00.00. When you press the SET button a third time your new settings will be applied.

Start with an adjustment of 0.1° C degrees initially. Check cocoa butter silk texture 4 hours after each adjustment.

TROUBLESHOOTING

Some people have reported cocoa butter that continues to have small crystalline chunks in it even after raising the temperature. We suspect this is due to older cocoa butter that has been sitting around long enough to convert to form VI crystals. Simply melt the cocoa butter and cool to room temperature until solid. Return to unit and proceed as before.

If cocoa butter is completely melting you may have been sold cocoa butter that contains non-cocoa butter fats. Palm oil and other non cocoa butter fats are liquid between 33 and 34°C. Replace with cocoa butter from a reliable source. However - it may also indicate the fan is not functioning - check to see if you can hear the fan noise and that the fan button is on. If there is a problem with the fan - please contact me at info@eztemper.com.

Using Your EZtemper Silk

Bring the product you wish to pre-crystallize to a temperature between 28 and 33.5°C, depending on the application, before adding the required amount of silk.

Cocoa mass, chocolate, or coloured cocoa butter should be between 32 and 33.5° C, whereas ganache, meltaway or gianduja can be closer to 28° C when the silk it added.

Since you are introducing the stable form of cocoa butter crystals you need only wait a minute or so before using your product.

If used to pre-crystallize melted chocolate, the chocolate will remain in temper for as long as the chocolate is not overheated. As it cools you can reheat to the initial temperature without throwing your chocolate out of temper. It will over crystallize as time goes on and you will find that you can push your temperatures higher - up to 34.5 for dark chocolate.

Tempering Chocolate

Add 1.0 percent (by weight) of cocoa butter silk to melted chocolate that has been cooled to 33.5º C (92.3º F) or even a degree or two cooler. A little experimentation will be required to determine the appropriate percentage for the chocolate you are using. You may find

that you can go as low as 0.5% of the EZtemper silk.

If you are tempering a large quantity of chocolate - for example using the EZtemper silk to seed a 10 kg wheel unit - remove a small quantity of the appropriate temperature chocolate from the machine into a bowl and stir the EZtemper silk into this smaller amount before adding it back into the mass.

Tempering Ganache

A ganache that is tempered is more stable, can be cut within a couple of hours of production and will not separate. It will be smooth and creamy, it will melt uniformly in the mouth and will not be grainy.

After emulsifying your ganache, at a temperature anywhere between 28° and 33° C — add 0.5 to 1.0% of the weight of the ganache of EZtemper silk and mix in

thoroughly. The ganache may now be poured into a frame and cut as soon as it has set up (which may be as little as an hour or two). Ganache may be piped into shells when it is between 28 and 30° C.

Tempering Meltaways

Meltaway mixtures become quite fluid after the coconut oil is added to the chocolate - making it very challenging to temper them. Untempered meltaway sets poorly and becomes grainy. Because of the fluidity it is difficult to temper on a slab, particularly if you are working with large quantities.

Add 1.0 percent of the weight of the meltaway recipe of EZtemper silk to the mixture when it is between 26 and 33° C then pour into frame. Once cooled and set it is ready to be cut - this can be within as little as 1 hour depending on your starting temperatures.

Tempering Gianduja

For tempering commercially produced or your own giandujas - EZtemper silk can be the solution to a challenging issue.

Between 0.5% and 1.0% of the weight of gianduja of EZtemper silk added to the the gianduja between 26 and 33° C will achieve good temper and allow you to cut your gianduja slab as soon as it has set - often as little as an hour. For example for 1000 grams of melted milk chocolate, 450 grams of hazelnut paste - cool to between 26 and 33° C degrees, incorporate 8 to 14 grams of EZtemper silk, pour into frame or mold. Cool until firm. Can be cut on guitar or by hand as soon as firm.

Tempering Bean to Bar Cocoa Mass

Cool mass to between 33 and 34° C - add 0.5 to 1.0 percent EZtemper silk. Stir for 1

minute. The pre- crystallized mass may now be pumped into buckets or molds.

EZtemper Care & Maintenance

The EZtemper unit is easy to maintain and clean.

The unit should not be immersed. Spills can be simply wiped with a damp soapy cloth. It is not unusual for cocoa butter crystals to form a film on the black silicone parts of the appliance. This may require wiping on occasion with a warm soapy cloth.

The stainless grid at the bottom of the unit and stainless steel containers may be safely cleaned in the dishwasher. Be sure to rinse and completely dry all components before next use.