

Pectin gummy recipe infusion mix

40 grams soy lecithin granules

Place in 400ml mason jar and add 60 grams of 85F alkaline water to it. Stir together gently to ensure all granules are hydrated. Close jar lid. Place jar in pot of 110F water. Allow jar to sit for 2 min, open lid and stir gently to ensure even hydration. Never stir aggressively at any point in the entire process, that will cause aeration of the phospholipids and ruin the batch completely. You are only stirring just enough to ensure the ingredients mix together and the water doesn't pool anywhere in the container. Allow jar to sit in 110f water. At the same time in a separate 400ml mason jar, combine 10 grams of hydrophobic api with 60 grams of ethanol. Heat and stir til fully dissolved. Take 3 100ml glass spray bottles and divide mixture evenly amongst them. Dilute one spray bottle with an additional 15 grams of ethanol and add 5 grams of liquid mct oil. Take 1 100ml glass spray bottle and fill it with 15ml alkaline water. Take 1 spray 100ml glass spray bottle and fill with 15ml ethanol. Prepare small pot to heat all 5 bottles. Return attention to hydrating lecithin. Observe specifically for uniform hydration and no dry spots. Lecithin will first hydrate and as it sits under influence of heat it will then begin to clarify. It must remain undisturbed during this process to avoid aeration. The clarification process will turn the lecithin from a yellowish hazy appearance to a slick glossy translucent reddish appearance. Its absolutely crucial to achieve perfect clarity to ensure proper phospholipid layering. This process can take up to 24 hours depending on how water is introduced to the lecithin. Water hydrated lecithin will gradually clarify itself between 100F and 140F. The water temp can be gradually adjusted up to speed the process but must not exceed 140f. After 1 hour the original water content should have fully absorbed. At this point you want to start coaxing the lecithin towards clarification. Surface tension in the mixture must be gradually decreased to fully clarify the mixture. A fully clarified mixture will be a translucent gel. It will cause some image distortion if looked through but should have no visible undissolved contents. A homogeneous mixture will be a gel resembling the viscosity of motor oil at temps between 100f and 120f and it will become thinner as it is heated and kept under the boiling point of ethanol. All mixtures should be produced in sealed mason jars with pressure sensitive lids. The average mason jar lid is designed to pop open at around 14psi. To assist in clarification the surface tension of the mix needs to be cut by gently introducing an alternating pattern of hot solvent and hot water. Place the 100ml glass spray bottles containing the diluted mct oil mix and the water into pot of water and allow to sit until internal temp reaches 140f. Once this temp is achieved, remove the alcohol containing bottle and shake it vigorously for 2 minutes then place back into the hot water and allow temp to return to 140f, repeat this step 3 times to ensure that the api has fully dissolved. Use a clear glass spray bottle if needed to ensure full dissolution. Increase heat of lecithin containing mix to 125f internal temp gradually by increasing water temp to 150-155f and prepare to start alternating spray bottles. Open the hydrated lecithin jar once it reaches 125f and begin by spraying 5 sprays of the 140f alkaline water into the jar, then close the lid of the jar and allow this water to absorb into the mix for 2 minutes. After this 2 minutes open the jar and spray 140f alcohol/mct/api bottle into mix 5 times, close jar and allow to sit for 2 minutes. Repeat these steps until both spray bottles are empty. Cap the jar and allow it to sit for 30 minutes after this process and reduce water temp to 135f. Do not shake the jar or stir it. After 30 minutes check the mixture for clarity. At this point the mixture should be a fairly translucent gel if the

lecithin granules are standard pc content. If granules are high pc then the viscosity will be lower with more transparency at this point. Continue to monitor for clarification, total clarity must be achieved before the next step can begin.

Increase your water temp to 145 and place 2 empty 400ml mason jars in beside the existing formula. Observe your composition on your formula at this point. If you are using high pc lecithin then you will notice that there's very little separation, if any. With standard lecithin you will start to see 2 layers. The upper layer contains a substantial amount of pc, while the lower layer holds most of the others phospholipids. Pc is highly soluble in ethanol and will separate from the other lecithin components once a certain ethanol/water saturation point is reached.

Next, use a 145f pre-heated open tip syringe to remove half of the top layer and inject it into one of the empty 400ml jars. Make sure the tip is large and unrestricted and carefully and slowly draw the liquid up to avoid any foaming or aeration. Place a lid on this jar. Increase water temp to 155f. Next, take the jar with both layers, pick up slowly, swirl it slowly to coax the two layers into one. Once they're homogenous, remove half of the mixture carefully and slowly by syringe and inject slowly into the other empty jar. Close both jars. Allow all 3 jars to sit for 10 minutes to heat up settle and remove any bubbles formed while transferring. Next, take remaining 3 spray bottles and place them into water to heat. Also, get another 100ml spray bottle thats filled with 50ml standard ph water. Place that water bottle in water to be heated as well. After 10 minutes has passed, open the jar that contains only the top layer you removed. Spray 5 sprays of heated water onto walls of jar and close lid. Now open the other 2 jars and spray 5 sprays of ethanol only into walls of each and reseal. Wait 2 minutes for water and ethanol to absorb. You want the mixtures to always balance out in temperature before continuing to next step. You dont want to disrupt temperature homogeneity too much because that can cause unwanted phospholipid tail interactions, as well as denaturing of phospholipids if the homegenity is unbalanced by large amounts(20F+). Next, open the top layer jar and spray 5 sprays of one of the two spray bottles containing ethanol/api mixes onto the walls and close jar. Next open the other two jars and spray 5 sprays of the other ethanol/api bottle into each, recap the jars for 2 minutes, spray 5 more sprays into each jar, recap for 2 minutes, then repeat this process until the bottle is empty. Next, open the top layer jar and spray 5 sprays of heated water into it, cap for 2 minutes, spray 5 sprays of ethanol/api mix into it, cap for 2 minutes, repeat this process til ethanol/api bottle is empty. Gently swirl each jar to ensure each mixture is homegenous and allow jars to sit for 10 more minutes with the lids off while increasing water temp to 165f. Next, pour all 3 jars into one slowly. Then seal that jar and place it back into the water. Next, begin gummy process.

Pectin Gummy Recipe With Cellular Wafer Tech

Once you have your infusion material(wafer mix)ready, maintain it at 165f in an air tight container until use. I would recommend starting the gummy recipe when you are about 75% of the way through the cellular wafer process. The time the gummy recipe takes is highly dependent on the type and size pot used to heat the sugar/corn syrup mix. If a thin undersized pot is used then it can take hours. But a thick large pot on a powerful burner can get it to temp in 10-20 minutes. Be aware of how fast your sugar is heating. Also, the sugar/cs mix can be held at lower temps(210-220)to dehydrate it without risking burning it. You can run it on low for the first part for a firmer gummy. Ive noticed that sugar can hold different moisture content even at

temps above the boiling point of water. Just because the sugar is at 250f doesn't necessarily mean it has no moisture left in it. Holding it at a lower temp for a while or heating it more slowly can help remove more moisture and create a firmer gummy. The water content can be substituted for various fruit juices. Pectin gummies are created by the reaction between an acid and hydrated hot pectin dissolved into liquefied sugar. Hardness is controlled by the final temp achieved in the boiling sugar mix. The springiness or bounce comes from the efficiency of the acid/pectin reaction in conjunction with the water content. The wafer liquid should only be introduced at the very end of this process. It will need to be introduced and stirred in very carefully. The final potency of the gummies is heavily dependent on how well the wafer formula settles in the mix. It needs to be left undisturbed at a high temp for a long time. I recommend pouring large flat sheets of gummies and cutting them after they cool and harden to ensure max settling. Never allow the mix to foam while being introduced. You will inevitably see a some bubbling due to the fact that you are introducing ethanol at 185-195f but do not stir aggressively or introduce mix at any temp over 195f. The wafer becomes more potent and effective as it deinflates and settles within any recipe. The wafer will only deflate as surface tension allows. Make sure to never manipulate the mixture unless its over 180f and completely liquid. The pectin acid reaction takes 10-30 minutes depending on the quantity of acid used and temps reached. The mix is only liquid enough to manipulate for the first 2-3 minutes after the citric acid is introduced. Pouring it aggressively into molds will aerate it and reduce potency as well. If you are going to pour it, do it very gently.

Recipe makes 500 4ml gummy squares

Ingredients in grams:

Sugar-1000

Corn Syrup-1000

Water-400

Pectin-180

Potassium Citrate-35

Citric acid-10

Flavoring-10 grams of most extracts, but its up to you

In large saucepan mix corn syrup and sugar and 1 cup of water. Place on low heat til all of the granulated sugar is dissolved, then turn to high heat. In a separate saucepan with a lid, mix water and Potassium Citrate and put on medium heat. Once water is boiling, mix pectin completely til there are no chunks, place on low heat and keep a lid on it while stirring occasionally. The sugar/corn syrup mix will need to be brought to 265f to produce a firm gummy. Watch it with a candy thermometer and note the rate it is heating. You will want to use the sugar mix as soon as it reaches full temp. The pectin mix needs to be kept above 145f but avoid high heat because it will burn on the bottom of the pan, it must be heated slowly. In a separate small sauce pan, pour 1/4 of the wafer mix in and bring to 155f. Dissolve citric acid in 20 grams of water in a separate container and heat to 175f. Gradually introduce citric acid to wafer mix while maintaining a temperature of 165f. The mix will coagulate if the citric acid is introduced too quickly. Gradually pour the citric acid into the mix at a rate of 1ml per 3 seconds and stir it in as

you pour. Once the mix is homogeneous turn your attention back to the boiling sugar. Once it reaches 265f, remove it from the heat and pour it directly into the container with the pectin mix. Stir well and allow mix to cool to 195f, add flavoring at this point. Next, slowly introduce the rest of your heated cellular wafer mix from the jar. Fold the mix in (do not stir) as it pours in. Once the entire mix is poured in allow the pot to sit for 30 seconds before gently stirring the mixture together. Next, slowly pour the citric acid mix from the small pan into the pot. Gently fold in as it pours in. Then allow to sit for 30 seconds, gently stir together to ensure full homogeneity. Do not stir past the point of homogeneity. At this point you will have about 15 minutes before the gummies start to harden. You will need to pour the gummies immediately and very gently as to ensure no foaming or aeration. Pour onto a heated metal surface if possible. The gummy mixture needs to be kept at 160-180 for 15-30 minutes while remaining undisturbed after it has been poured. Gummy molds can be placed in an oven at 170f to maintain temp if there's no heated surface. Gummies will be hard enough to pop out within 2 hours but i prefer to wait 6-8 hours. I like to pop them out directly into a bucket of sugar to coat them. Then i place them in a food dehydrator for 3-5 days at 100f. But these temps and times are highly dependent on how humid it is where you are. For example, gummies in texas take twice as long to dehydrate as Gummies in Colorado. Store gummies in a dry environment, enjoy:)