



## THE FOAMZONE

The incentive for me in developing FoamAroma<sup>®</sup> was that I like to enjoy the foam when I have an espresso drink. Having the drink in an open cup is the best way to do that. But in order to safely have the drink in the car or while on the go I, like everyone else, puts a lid on the paper cup. So the first thing I had to fix was the shape of the drink hole. If I am drinking a latte, the hole needs to allow foam and milk to easily pass through it. After many trials with hole shapes the inverted triangle worked the best. It is tall enough to access to total height of the milk and floating foam. Also, it is wider at the top which makes it easier for the stiffer foam to get through the hole. To accompany the volume of fluid leaving the cup there has to be enough air entering the cup to avoid creating a vacuum or restricting the flow of fluid. The aroma hole has enough cross-section area for the air to easily vent into the cup. Also, it lets the wonderful coffee or tea aroma get to the drinker's nose. Actually the FoamAroma<sup>®</sup> drink and aroma holes can permit enough air flow that you can slurp while drinking. Just like in wine tasting and cupping (coffee tasting) the act of slurping is encouraged to aspirate the liquid into droplets thus coating the inside of the mouth with flavor. The act of slurping also allows the consumer to better control the temperature of the liquid. The FoamAroma<sup>®</sup> hole designs work quite well with black coffee and teas too. To the right, are the drink hole shapes traced from FoamAroma<sup>®</sup> and two of the popular brand lids. Which hole do you think lets you into The FoamZone?



FoamAroma<sup>®</sup>



Brand X



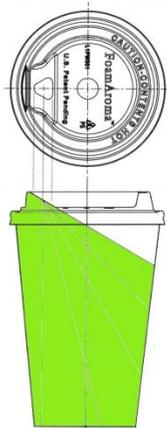
Brand Y



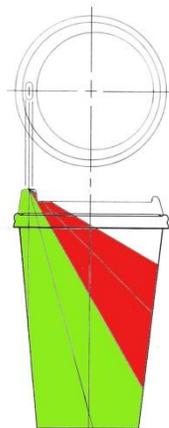
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With the holes of sufficient size and shape to let the foam through, now the foam has to get to the drink hole. Most plastic hot drink lids are made using the thermoforming process where a sheet of plastic is preheated, laid on top of a mold with a vacuum applied so the plastic is sucked down into the shape of the mold, then the holes are punched out. The easiest place to punch a hole is on the horizontal surface of the lid. Most current lids have the drink hole on the raised outside perimeter. Next time you are at your favorite coffee shop grab one of the lids and turn it over. You will see that the hole is recessed with a protrusion of plastic hanging down right in front of the hole. Because the foam is floating on top of the milk how is the foam suppose to get to the drink hole?

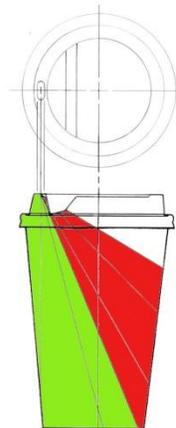
In contrast, the FoamAroma<sup>®</sup> drink hole is on an angled surface that makes it much easier for the foam to get at the drink hole. FoamAroma<sup>®</sup> and two of the popular hot drink lids are shown with The FoamZone highlighted in green. The FoamZone includes the angles of cup tilt where the top of the liquid has unobstructed access to the drink hole. Since the foam is floating on the liquid the foam can accompany the liquid out the drink hole only in The FoamZone.



FoamAroma<sup>®</sup>



Brand X



Brand Y

NOTE: The artwork contained in this document was made by hand by an amateur. No way are the drawings supposed to be an exact replica. You get the idea.