

**TWENTY-FIVE YEARS AGO**, in 1997, Boveda invented and pioneered an entirely new humidification category. We named this category two-way humidity control and it's based on the scientific principle of a saturated salt solution. Boveda's technology is protected by several patents.

Boveda is the world's first two-way humidity control and is the global leader serving a multitude of industries.

Because Boveda's technology is protected by several patents, competitors are limited to using methods that aren't as effective at controlling humidity. To combat inferior performance, some competitors try to deceive the market by spreading false and misleading statements about Boveda in an effort to steal customers.

The purpose of this document is to confront the deceptive and false statements coming from some new-to-the-scene competitors of Boveda.

## WHAT IS BOVEDA'S 2-WAY HUMIDITY CONTROL?

Boveda's 2-way humidity control continually responds to the changes in ambient temperature and humidity—as needed—to maintain a pre-determined level of relative humidity (RH).

- 1. Available Humidity Levels (with Precision)** – Boveda manufactures products that range from 20% to 95% RH that are used in a variety of industries and applications. Cigar-related products range from 65% to 84% RH. Unlike recently introduced brands, Boveda's accuracy is unmatched—maintaining accuracy +/- 2% throughout working life. No other product can match this level of performance (see one typical example below).
- 2. Food-Grade Ingredients / FDA Compliant** – Each Boveda is comprised of salt saturated in water, thickened with an odorless, tasteless food-grade gum enclosed in a semi-permeable, reverse vapor phase osmosis membrane. Every component of Boveda, including all materials, ingredients, printing ink—everything—is food-grade and FDA compliant. Boveda always has been and always will be FDA compliant.
- 3. Reverse Vapor Phase Osmosis Membrane** – Boveda's membrane guarantees purified water vapor. The membrane ensures that no liquid or ions (such as salt or any other constituent) pass through (in or out), **providing the cleanest and most purified water vapor available**. No other product can match that. **In any event, salt is odorless and does not leave the packet**.
- 4. Calibration** – Saturated salt solutions, as used by Boveda, are known scientific standards for regulating humidity and are regularly used in the science field to calibrate expensive instrumentation. The science field will never use a mixture of glycerin and water to calibrate instrumentation because it's not considered a standard for accuracy and reliability. Neither your humidor nor your cigars should either.
- 5. Patented** – Boveda holds several international patents for this technology. No competitor can match the performance of Boveda.

## SCARE TACTICS

### Beware of deceptive and misleading statements from new brands trying to steal customers

In an effort to gain customers, some of the newer brands have resorted to tactics that are meant to mislead or even deceive potential customers. This is unfortunate and has required that we address some of the inferences in writing.

- 1. Deceptive Statements About Aroma & Taste** - In addition to being food-grade, salts are non-volatile and odorless, and no salts pass through the membrane. Boveda controls humidity naturally, doing one of two things at a time: either absorbing clean water vapor or emitting clean water vapor—nothing more, nothing less.
- 2. Inferences of Salt Corrosion** - It's humorous to talk about something that is utterly irrelevant to plant material but we'll address it because some desperate people have tried to infer the ridiculous. Yes, it's true that saltwater is corrosive (so is water), but it is an irrelevant topic in the context of Boveda because Boveda does not emit any salts. Saturated salt solutions aside, when placed directly on metal, pure water alone will cause corrosion—and so will a mixture of glycerin and water. Some desperate sales reps would have you believe this is a relevant topic for plant material. Neither tobacco nor any other plant material corrodes, it's impossible. Nevertheless, since newcomers have brought it up, we'll print a response here. Boveda is the only product that we know of that has passed the Oddy test. The Oddy test is a stringent test conducted by museums to determine if a given product is safe to use with precious artifacts. The test determines if a product will off-gas or corrode metals. Boveda passes this stringent test. Safe for museums. Safe for fine cigars.
- 3. The Acetone Deception** - Acetone is found in nearly all plants, animals, humans, and in the air we breathe, including FDA-approved ingredients. As a matter of fact, the very air in the room you're standing in has the equivalent amount of acetone in it that our competition claims we have, which is 8 parts per billion. To give a little perspective, OSHA defines safe levels at 1 million parts per billion. Finally, every competing product we've tested gives off acetone—just like every product, and just like the air you just exhaled.

It's too bad, but desperate people engage in desperate measures in an attempt to mislead consumers. Don't be fooled, or worse yet, don't ruin your cigars by using an inferior product.

## WHY IS BOVEDA THE BEST SOLUTION FOR YOUR HUMIDOR?

Storing your cigars in relative humidity (RH) that's too high will increase the risk of mold growing on the cigars. Conversely, relative humidity that's too low will cause them to dry out and crack.

Most people know this basic rule. However, there's more to the story.

If you want to maximize the character and flavor of your cigars—and their ability to improve with age rather than degrade over time—it's essential that your cigars are maintained in an environment where the RH doesn't fluctuate. It's the fluctuations that cause the oils and sugars—the foundation for character, flavor, and aging ability—to dissipate. So, the full story isn't just to maintain the RH somewhere between 65% to 70% RH but to also keep the RH at a constant level within that range.

To effectively control humidity with this type of precision, a saturated salt solution is necessary. This is the foundation of Boveda's patented technology and is a fundamental difference that explains Boveda's performance over other "me-too" products—and the reason why the top cigar makers in the world have used Boveda for 25 years and running.

## BOVEDA COMPARED TO “ME-TOO” ALTERNATIVE PRODUCTS

The graph below shows the actual relative humidity (RH) inside a desktop humidor of Boveda and a competing product.

The humidors used for this test were common, top-selling humidors purchased at retail, and are representative of most humidors in use today. The humidors were identical make/model.

Prior to testing, each wooden humidor was seasoned with Boveda 84% RH for 14 days to ensure they each started at the proper equilibrium.

Boveda and the alternative product in this test (Integra-Boost packs) were added to each respective humidor. The humidors remained empty of cigars throughout the test. In addition, the humidors were placed in the same ambient environment for the duration of the test.

### WITH BOOST 69%, THE RELATIVE HUMIDITY (RH) DROPPED BELOW 60% WITHIN 2 DAYS, THEN CONTINUED TO PLUMMET

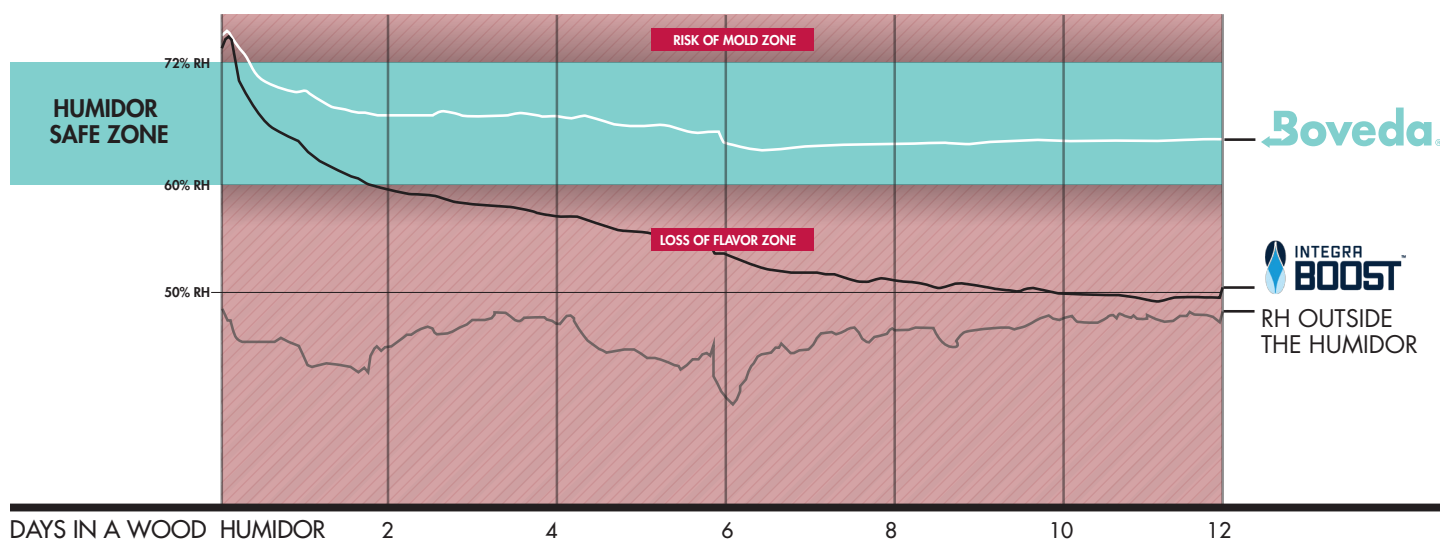


Figure 1.

## KNOWING WHEN TO REPLACE

Understanding when to replace the product you’re using is very important. Waiting until the RH inside your humidor drops is too late. Boveda’s technology will feel firm when the Boveda gets close to expiration. This feel is your indicator to replace the expired Boveda with new, fresh Boveda.

Because competing products use less-precise technologies, the feel will be the same whether there’s water in the system or not. This requires guesswork on the part of the user. Some companies include indicator cards to give an indication of when the humidity is too low. The problem with these indicator cards is that they’re unreliable and the indication occurs after it’s too late.

For example, instead of salt, the Integra-Boost product (see test above) uses glycerin, which is a thick jelly-like substance that never hardens. This gives a false sense of security that your cigars are being protected when, in fact, there may be no water remaining in the system, putting cigars at risk.



## COST COMPARISON

### Twice as many units of the competing product still couldn't keep up with Boveda

It's true that an individual Boveda packet might cost a little more than some competitors. However, because it takes fewer Boveda to maintain a humidor for a longer period of time, Boveda is the least expensive 2-way humidity control product on the market—by far.




IN A 50-COUNT HUMIDOR	WHEN RH DROPPED BELOW 60%	FINAL RH AFTER 2 WEEKS
	DID NOT DROP BELOW 60% RH	<b>67%<sup>RH</sup></b>
	6 Days	<b>55%<sup>RH</sup></b>
	9 Days	<b>58%<sup>RH</sup></b>

Figure 2.

### WHY ALTERNATIVE “2-WAY HUMIDITY CONTROL” PACKETS SUCH AS INTEGRA-BOOST STRUGGLE

To avoid infringing on Boveda's patents, alternative 2-way humidity control products such as Integra-Boost use a combination of glycerin and water. The amount of water (i.e. the ratio of glycerin to water at any given point in time) in the packet dictates the level of RH that the product will attempt to create. The problem with this is that as the packet gives up (or absorbs) water, the resulting RH also changes.

For example, for every drop of water the Integra-Boost product gives up, there's one percentage point drop in the RH level that's printed on the front of the packet. THIS IS PRECISELY WHY THE SATURATED SALT SOLUTION INSIDE EACH BOVEDA IS REQUIRED TO MAINTAIN A CONSTANT LEVEL OF RELATIVE HUMIDITY. NO OTHER TECHNOLOGY CAN CLAIM THIS.

## BOVEDA IS THE INDUSTRY STANDARD

Boveda conforms to and is compliant with the following national and international standards.

**FDA Compliant and Food Grade** - Everything Boveda uses, materials, ingredients, printing ink—everything—is FDA compliant. Boveda always has been and always will be FDA compliant.

**cGMP (Current Good Manufacturing Practices)**

**ASTM International Compliant**

**Non-toxic**

**EU Policy and European Food Safety Authority**

**ISO-9001:2015 Quality Standard**

**Canadian Cannabis Regulations** - Boveda is compliant with Sections 103 and 104 of Part 6 of the Canadian Cannabis Regulations for not imparting or adulterating flavor or having phytocannabinoid effects.