

OIS&Associates

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The technology of the Infusion Spiral® (TIS®) Present: GUIDE TO WINE PREPARATION WITH TIS®



WHAT IS TIS®?

TIS® is known as *“The intelligent tool to age and ferment alcoholic beverages.”*

WHY THE INTELLIGENT TOOL?

It's unique and patented design allows an accelerated process without losing essential quality. In fact **TIS®** has proven, among numerous trials and clients, to give the same quality or even greater than traditionally used, new wood barrels.

“What a new barrel gives to wine in twelve to eighteen months, TIS® provides it in three to 6 months”. This concludes production and supply introduction to the market will be favorable to clients.”

WHAT TYPES OF TIS® CAN BE FOUND ON THE MARKET?

TIS® is available in two different sizes:

- 9 x 1.5 inch Barrel Pack System: one (1) set brings six (6) individual inserts united by a food grade nylon netting. One (1) case brings fifteen (15) sets



- 48 x 1.5 inch Tank Pack System: one (1) set brings five (5) individual inserts united by a food grade nylon netting. One (1) case brings ten (10) sets.



TIS® is available in several wood species:

- American Oak
- French Oak
- Eastern European Oak
- Sugar Maple
- Amburana
- Spanish Cedar
- Cypress
- Cherry
- Assorted Blended Toast Packs



TIS® is available in different toasts: Light, Medium, Medium Plus, Heavy and Char #3.

“TIS® is a custom made product, it is possible to adapt production to clients requirements by creating a toast level that better suits the desired profiles.”

WHAT BENEFITS ARE RECEIVED FROM USING TIS® RATHER THAN OTHER WOOD ALTERNATIVES?

LESSER COSTS:

- THAN NEW BARRELS AND STAVES.
- OF PRODUCTION PER LITER.
- OF STORAGE AND LOGISTICS, BOTH EXTERNAL AND INTERNAL.
- OPERATIONALLY, IN REFERENCE TO MANPOWER; MANIPULATION AND IMPLEMENTATION OF PRODUCT VERSUS OTHER ALTERNATIVES.
- IN REGARDS TO ACCESSIBLE CONTROL STRATEGIES.

OTHERS:

- SHORTER TIME OF PRODUCTION OF BEVERAGE.
- LOWER IDLE CAPACITY IN PLANT/ GREATER EFFICIENCY IN THE USE OF THE INFRASTRUCTURE.
- EXCLUSIVE DESIGN OF PROFILES UPON REQUEST. (CUSTOM MADE)
- GREATER ECOLOGICAL SUSTAINABILITY.
- BLEND-ABILITY OF DIFFERENT SPECIES OF WOODS TO CREATE UNIQUE PROFILE.

IN WHICH PART OF THE WINE PREPARATION PROCESS CAN TIS® BE USED?

TIS® can be used during the Fermentation and/or the Aging/Maturation process.

I. HOW TO USE TIS®:

Depending if working with smaller recipients or big tanks, use will be with either the 9" Barrel System or the 48" Tank System. It is important to note that in the stainless steel tanks it is suggested to use the 48" spirals since it is convenient to use these over the 9" spirals (for quantity reasons simply, since what a spiral of 48" provides is equivalent to 5.3 spirals of 9"). The process of inserting and removing the spirals is more efficient using the largest commercial measure.

If working with barrels for example, then the 9" System is ideal. The Spirals can be used as barrel renovators when the barrel is no longer adding any attribute to the wine or they can be used to support used barrels that are giving less attributes than a new barrel.

II. HOW TO USE TIS®:

TIS® has been designed with the clear purpose of maximizing the contact surface. No less important, is the spiraled -scientific helical shape of TIS®, which is meant to support the natural molecular movement inside any type of recipient. Creating a truly homogeneous liquid.

"TIS® has a competitive reuse potential depending on how it is used previously. Lesser contact times or when used for finishing will allow for additional implementation of spirals. For reuse, just retrieve it from the recipient by pulling from the string and secure and submerge it again into another Barrel or Tank."

HOW MANY SPIRALS SHOULD BE USED IN THE FIRST TRIALS?

One 9” Barrel System set treats 225 liters at 100% contact and one 48” Tank System set treats 1000 liters at 100% contact.

HOWEVER:

Recommendations for lower contact ratios are the following:

TIS® SYSTEM	CONTACT %	TIS® SYSTEM	CONTACT %
One 9” Barrel System insert	16.66%	One 48” Tank System insert	20%
Two 9” Barrel System inserts	33.32%	Two 48” Tank System inserts	40%
Three 9” Barrel System inserts	49.98%	Three 48” Tank System inserts	60%
Four 9” Barrel System inserts	66.64%	Four 48” Tank System inserts	80%
Five 9” Barrel System inserts	83.3%	Five 48” Tank System inserts	100%
Six 9” Barrel System inserts	100%		

The Barrel System set brings 6 inserts and Tank System set brings 5 inserts

Our experience with wine customers confirm that almost 9 out of every 10 use between 8% and 33% contact.

“It is recommend to run several trials using between half a spiral and two spirals. After several tastings, winemakers will be able to notice our TIS® profiles and they will also be able to improve the process considering their own expectations.”

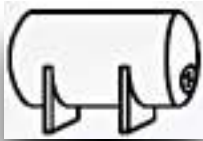
NOTE: To calculate the quantity of spirals for smaller trials keep in mind the above mathematic relationship.

TIS® & SPARKLING WINE PREPARATION:

Sugar Maple is the most widely used wood species among winemakers to produce quality Sparkling Wines because it has the capability to provide:

- *Creamy sensations in mouth*
- *Stronger and more rounded body*
- *Sweet sensations without adding sugar.*

Universally there are two different methods to produce Sparkling Wines:



1 - Charmat Method: for this method, it is highly recommend to use **TIS®** Sugar Maple Spirals in the second fermentation of the wine. Experiences with real clients show that spiral quantities for Sparkling go from one (1) 9" Sugar Maple set every 1500 to 4000 liters, depending on the profiles that the winemaker wants to achieve. In case the process requires large stainless steel tanks, use the 48" system keeping the previous mathematical relationship (considering that one 48" individual insert is equivalent to 5.3, 9" inserts).



2 - Champenoise Method: for this method, there are two different possibilities for the use of **TIS®** Sugar Maple Spirals. The first one consists of using the spirals during the first fermentation in stainless steel tanks. The second one consists of using the spirals for creating the expedition liqueur. This second possibility means that winemakers will have to use the Sugar Maple Spirals to create a higher alcohol level liquid before refilling every bottle after the second fermentation.

Quantities to use **TIS®** during the first fermentation could be the same as in the Charmat Method or even a little higher because the wood profile will lose some strength after the second fermentation. Quantities for the expedition liqueur vary depending on the type of sparkling that is being made, but it can be said that they are higher proportionally speaking, due the fact this liqueur is a very high concentrate.

TO TAKE ADVANTAGE OF THE CAPABILITIES FROM THE TIS®:

- It is recommended to secure them with a string (TIS® will not float and it will sink to the bottom shortly) somewhere at the top of the tank or the barrel.
- TIS® must be submerged at the middle of the recipient, where the movement epicenter should be occurring. As shown in FIG.1 below.
- To retrieve the TIS® from the recipient, just pull the string used to secure them in the beginning stage.



FIG.1 TIS® SUBMERSION RECOMMENDATION

(*) Note flow of liquid in container in relation to TIS® incorporation

HOW SOON CAN I RECEIVE RESULTS FROM TIS®?

It is recommended for those trials that have been between 8% and 50% contact to have a first tasting after 1 and a half months and a second one after 3 months. For a higher % contact, the wood profiles are going to be stronger but never TOO OAKY. In these cases it is recommend to have 3 tastings, one per month and thereon if needed.

Testimonials of clients vary slightly regarding the contact time. Each winemaker is objectively looking for unique profiles and will be subjective to his/her projection, so after this complete period of 3 months, the decision should be taken of the winemaker performing the trials to further age the wine or not.

TIPS TO ENSURE FRESHNESS OF TIS®:

TIS® is a custom made product design as mentioned previously. Spirals are kept in bags that are sealed considering some humidity degree. By keeping the bag closed, TIS® can be used for up to two years safely.

“If the bag has been opened for use and some spirals are still remaining, please seal the bag in the best possible way to keep the humidity controlled. Humidity plays a key role in the quality because it ensures that clients will not find ‘overly woody’ attributes in their wines. It also allows the spiral to submerge into the recipient faster.”

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TIS® Made In USA

US Patent 7357069

Infusion Spiral is a registered trademark of The Barrel Mill

