



## GUIDE TO THE CALCULATION OF THE SCORE

The calculation of the score for a coffee competing at International Coffee Tasting 2024 consists of three different phases:

1. sensory evaluation of the product by the panel of tasters
2. statistical processing of the sensory evaluations of the panel of tasters
3. calculation of the product score

### **1. Evaluation of the product by the panel of tasters**

The tasters are gathered in a panel and evaluate the product completely blindly. This means that the tasters do not know any information about the product they are evaluating (so they do not know the name, company or origin). For each product they fill in the International Coffee Tasting 2024 form assigning a score from 0 to 9 to each descriptor (a descriptor is a sensory characteristic).

### **2. Statistical processing of the sensory evaluations of the panel of tasters**

Using robust statistical techniques, the quality of the work done by the tasters is first assessed. Only the data provided by those who reach a minimum efficacy score are then considered and the overall reliability of the panel is assessed. Thanks to these data, the median is calculated for each individual product descriptor: the medians are therefore the judgment of the group of tasters and constitute the sensory profile of the product.

### **3. Calculation of the product score**

The medians of the descriptors are inserted in the formula for calculating the score, shown below and detailed in Annex A of the General Regulations of International Coffee Tasting 2024.

$$Score = \left[ \sum_{Pos} (Descriptors_{Pos} * Cor\_Index) - \sum_{Neg} (Descriptors_{Neg} * |Cor\_Index|) \right] * Multiplier$$

Not all descriptors have the same weight in forming the final score: based on an archive of almost 2,500 coffees from over thirty countries around the world, a weight has been calculated for each descriptor, called the Correlation Index. This means, in short, that some descriptors matter more in generating the score. For example, if the group of tasters assigned a median 7 to the descriptor Texture, this generates more points than the median 7 attributed to the descriptor Roasted.

Furthermore, the descriptors are positive or negative, so they increase or decrease the final score. The positive ones are: Texture, Olfactive Intensity, Body, Acidity, Flowers And Fresh Fruit, Dried Fruits And Nuts, Roasted, Spicy. The negative ones are: Bitterness, Astringency, Vegetable, Empyreumatic, Biochemical. Finally, the score obtained is multiplied as follows:

- Category A 6.50
- Category B 6.50
- Category C 4.00
- Category D 4.70
- Category E 4.00
- Category F 4.00

### **4. Example**

A tasting session takes place with seven tasters who evaluate a series of espresso coffees using the International Coffee Tasting 2023 form. At the end of the session, the individual tasters are first evaluated and they obtain the following effectiveness indexes:

Taster	Effectiveness index
A	8.68
B	8.11
C	8.49
D	7.93
E	8.43



Taster	Effectiveness index
F	7.82
G	7.77

As you can see, all seven tasters achieved an effectiveness index above the minimum which is 6.00. At this point, the reliability of the panel as a whole is assessed, and a 100% index is obtained, which makes us understand that the panel has been extremely aligned in its assessments.

For each espresso tasted, the median of each single descriptor is then calculated and the following profile is obtained for the first espresso coffee (the positive descriptors are highlighted in green, the negative ones in orange, both enter the calculation of the score, while those in white do not contribute):

Descriptor	Product
Color intensity	6.00
Texture	8.00
Olfactive Intensity	7.00
Body	7.00
Acidity	5.00
Bitterness	2.00
Astringency	0.00
Flowers And Fresh Fruit	3.00
Vegetable	1.00
Dried Fruits And Nuts	4.00
Roasted	6.00
Spicy	2.00
Empyreumatic	0.00
Biochemical	0.00
Overall Positive Odors	7.00
Overall Negative Odors	1.00
Attractiveness	8.00
Olfactive Pleasantness	7.00
Balance	7.00
Retrolfactive Pleasantness	7.00
Hedonic Level	7.00

As mentioned above, not all descriptors have the same weight in the determination of the score, so the conversion through the Correlation Index is applied.

Descriptor	Index_Cor	Median	Score
Texture	0.60	8.00	4.80
Olfactive Intensity	0.57	7.00	3.99
Body	0.62	7.00	4.34
Acidity	0.42	5.00	2.10
Bitterness	0.17	2.00	0.34
Astringency	0.11	0.00	0.00
Flowers And Fresh Fruit	0.40	3.00	1.20
Vegetable	0.13	1.00	0.13
Dried Fruits And Nuts	0.54	4.00	2.16
Roasted	0.44	6.00	2.64
Spicy	0.37	2.00	0.74



Empyreumatic	-0.17	0.00	0.00
Biochemical	-0.25	0.00	0.00

The sum of the positive descriptors is:

$$4.80 + 3.99 + 4.34 + 2.10 + 1.20 + 2.16 + 2.64 + 0.74 = 21.97$$

The sum of the negative descriptors is:

$$0.34 + 0.00 + 0.13 + 0.00 + 0.00 = 0.47$$

The partial score is given by the difference between the positive and negative score:

$$21.97 - 0.47 = 21.50$$

Being an espresso coffee, the final score is given by multiplying the partial score by 4.0:

$$21.50 * 4.0 = 86.00$$

It is concluded that this espresso coffee scores 86.00 points.