



LABORATORY REPORT

BOTTLE ANALYSIS IIG LLC CP-47 PP

REPORT DATE: 27/10/2020 UPDATE: 27/10/2020

APPLICANT: IIG LLC

ITEMS:
2 bottles 500 ml and 250 ml made by glass manufacturer Vetreria Etrusca.
3 bottles 250 ml with hemp oil.



OBJECTIVE:
Dimensional analysis of mouth bottles sent by the customer to determine if it conforms to the norm UNE 126-407 and the suitability with our model Captor 47 PP.
Suitability with hemp oil and our product.

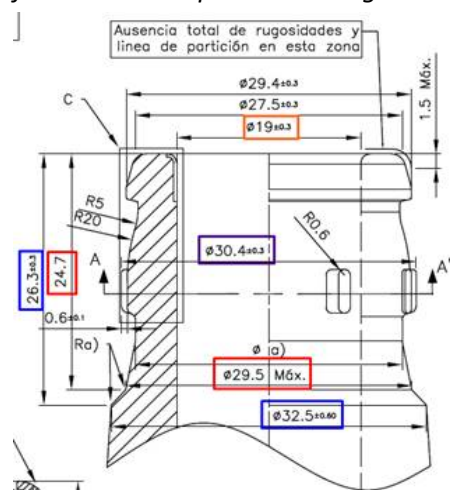
DIMENSIONAL ANALYSIS:

After analyzing the two bottles received for their study of suitability with our cap models, we made the following comments:

- Depending on the external and internal dimensions, it could be compatible with our Captor 47 model. However, we detected the following deviations (see reports 02 and 03):

- o Both bottles have dimensions slightly outside the UNE 126407 standard regarding the diameter of the inner profile ($19 \pm 0,3\text{mm}$). Marked in orange on the plane of the lower mouth.
- o At 24,7mm, the diameter of the neck in the 50cl bottle is 29,69mm, while the UNE 126407 indicates that the maximum must be 29,5mm. Marked in red.
- o At 26,3mm, the neck diameter of both bottles is outside that established by UNE 126407 it exceeds the maximum limit of 33,1mm ($32,5 \pm 0,60\text{mm}$).
- o As shown in image 04, the diameter of two of the anti-rotation of the 50cl bottle are slightly out of the standard and also have a "poorly defined" shape, see image 05.
- o Presence of a cutting edge at the entrance to the mouth of the bottle.

** In the event that these deviations are far from those established in UNE 126407, they could generate lack of tightness, incorrect application of the cover and product leakage.*



CAPPING TEST

During the capping tests we detected a slight inclination of the lid. See image 08.

VACUUM PUMP TIGHTNESS TEST

In the vacuum pump tightness tests, subjecting the bottles with water to a pressure of -0,7bar for 1 min, we did not detect liquid leakage.

OIL TEST

- Immersion of Captor 47 PP in hemp oil for 30 days at 45°C in an oven: **Result OK.**
- Application of Captor 47 PP in a bottle with hemp oil inside, placing a bottle lying down and another vertical in the oven for 7 days at 45°C: **Result OK.**

Immersion test



Volatile test



Volatile test



CONCLUSION:

In conclusion and with the analysis carried out, we verified that the mouths of the bottles could be functional with our Captor 47 PP model. However, we recommend discussing the deviations described above with the glass manufacturer.

The results of the tests carried out, we obtain that our product Captor 47 PP is not affected by hemp oil with the conditions that we have applied in the laboratory.



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