

COVID-19 ALTERNATIVE SENSORY TESTING OF LIQUID FOUNDATION: ANALYZING THE IMPACT OF VARIABLE EVALUATION CONDITIONS AT HOME

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1 INTRODUCTION

Due to the COVID-19 pandemic, sensory panel testing in standardized booth conditions was temporarily stopped. To move projects along during this time, L'Oréal's descriptive sensory panel began testing at home. This interim option allowed the labs to continue understanding the performance of their products in an agile way.

Sensory panels are designed to be very standardized in their methods and conditions of testing. During the pandemic, the L'Oréal sensory team had to create a new environment for these panelists to test products at home while maintaining the specificity and discriminability of evaluations conducted in sensory booths.



2 MATERIALS & METHODS

Measure light levels at home and inside booths using light meters to simulate booth lighting at home.

Develop and validate method for measuring and applying liquid foundation at home.



Panelists apply products with specific protocols and lexicons.

10 liquid foundations were evaluated individually at home on a 15-point intensity scale by all panelists in a monadic sequential order.

Products were blinded with 3-digit codes.

4 CONCLUSIONS

The sensory mapping (MFA) of products tested on site vs at home produces a different picture of the sensory space. In the mappings we can see products shift positionally and in their clustering based off the testing location. For example, when evaluated in the on-site booths, FDN 10's positioning was driven by lower coverage, lightweight feel and even finish. When evaluated at home, FDN 10's positioning was driven by greasy and thick texture with a shiny finish.

The makeup result after application showed the most differences across all the products compared at home vs on site, while few attributes consistently showed differences across the wear period. Both of which could be attributed to the lighting conditions, self dispensing, and mask usage during at home testing.

The controlled testing conditions in the sensory panel booths produced a higher level of discrimination than the panelist's home conditions, which introduces more variability. While at home testing was a viable option temporarily, testing in the booths produces a more robust evaluation of liquid foundations.

3 RESULTS

Figure 1 : Test Location Comparison

On Site Booths	At Home
Full standardized lighting	Partial standardized lighting
Controlled dispensing by panel leader	Self-dispensing
Controlled sample storage	Uncontrolled sample storage
Controlled temperature	Uncontrolled temperature
Consistent water quality & temperature	Variable water quality & temperature
Evaluation scheduled by Panel leader	Panelist self-managed schedule
No masks	Evolution mask usage

Figure 2 : On Site Liquid Foundation Sensory Mapping

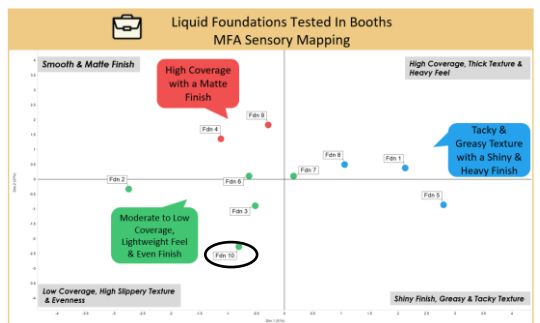


Figure 3 : At Home Liquid Foundation Sensory Mapping

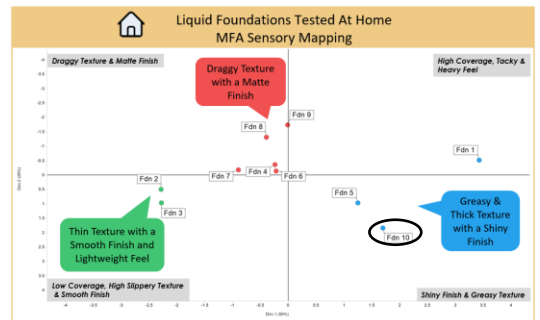


Figure 4 & 5 : Liquid Foundation Sensory Profile FDN 10

