

Behaviour of a 'no transfer' face foundation



Application

Cosmetics

Objective

Monitor the specific behaviour of a 'no transfer' foundation in comparison to a classic formulation

Device

HORUS®

| Sample | 'Transfer' time |
|--------------------------|-----------------|
| 'No transfer' foundation | 3 min 28s |
| 'Classical' foundation | 13 min 13s |

INTRODUCTION

Foundations are colouring preparations used to enhance the aspect of the skin by giving uniformity and concealing blemishes. Foundation formulation is quite complex. Typically, it is an emulsion to which various pigments and powders have been added and suspended with thickeners and various rheological agents. As coloured creams, classical foundations can leave traces on clothes while 'No transfer' foundations are designed to be non-staining.

COMMON METHOD

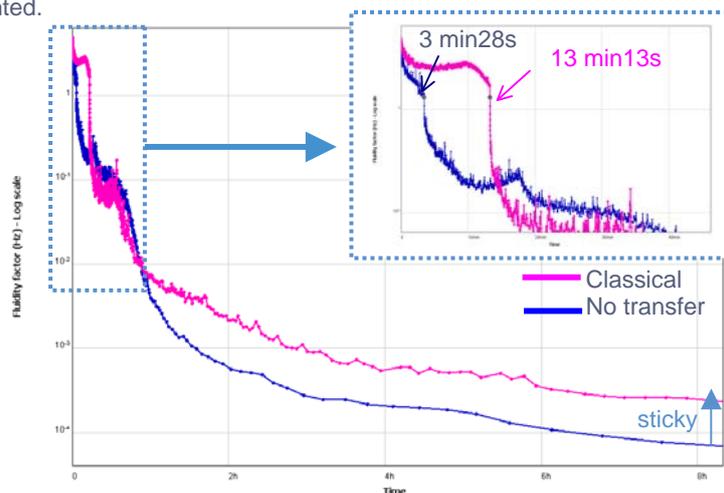
The behaviour of foundation formulations is usually studied by doing some panel tests. These consist in selecting some trained and untrained panellists, who judged the product against standard properties. Results obtained from these kind of studies are very valuable as they give a direct measurement of the expectations of the consumer. However, they are by essence subjective and are very complex to perform. **Therefore, they are only applicable at the end of the product development and cannot be applied on every single formulation prepared in the lab.**

HORUS METHOD

Two samples were tested : a 'classical' and a 'no transfer' formulation. They are both water in silicone emulsions, the formulas being based on the same volume fraction of pigment but with different polymers. Measurements were performed at 32°C on glass at 120µm (wet thickness).

The Horus kinetics shows that the classical foundation (pink curve) remains fluid during 13 minutes, when the 'no transfer' formulation (blue curve) displays a drop in 3 minutes. Therefore, it can be expected that the 'classical' formulation still risk to stain the clothes compared to the 'no transfer' one.

Moreover it is interesting to note that the final plateau is higher for the 'classical' foundation, which is characteristic of a sample which is softer. Indeed, when touching the film it sticks on the finger, whereas the "no transfer" foundation does not. Here again the non-staining properties of the 'no transfer' formulation are highlighted.



CONCLUSION

Using the Horus®, it is possible to follow the mechanism of drying for foundations and highlight the behaviour of 'no transfer' formulations to tailor the right product for the best consumer satisfaction.