

The Mascara Volume Test (MVT). A Method for Determining the Quantitative Efficiency of Mascara

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Abstract

Eyelash volume represents an important product-advertising factor for mascara manufacturers. However, until now, it has been difficult to support statements with reliable, measurable data. The Mascara Volume Test (MVT), devised by our company, is the first system ever to be developed for the purpose of measuring increases in eyelash volume. It employs a measuring system of evaluating volume increases in eyelashes, which is both objective and independent of test persons. It consists of the application of mascara in accordance with a standardised application procedure to real-hair eyelashes, which are subsequently subjected to photo-optical measurement. From the objective data thus obtained, it is possible to calculate the eyelash volume and the amount of mascara applied and to document the optical effect attained. This method of deducing efficiency is not only an ideal complement to standard application testing on test persons but it can also be conducted as an independent test for evaluating a new product or an improved formulation.

Introduction

“Your eyelashes, great long ones, Your two eyes’ darkling water, Let me dive therein, Let me sink deep“ (Georg Heym, ca. 1911).

Even at the beginning of the twentieth century, the attractiveness of a woman’s eyelashes was clearly considered sufficiently important that the German writer Georg Heym chose to immortalise them in a poem. To this day, long dark eyelashes are regarded as a facet of beauty and one that can be emphasised by several methods, such as colouring, attaching false eyelashes, or simply applying mascara.

Mascara was invented in 1913 by an American chemist named T.L. Williams, who wished to give his sister Maybel an extra advantage in finding a husband. His original formulation consisted of petroleum jelly and coal dust and was an immediate success, both for his sister and for him, as he

went on to set up a company named after his sister ⁽¹⁾. Since then, the ingredients used to create mascara have undergone considerable changes and improvements, with the result that nowadays, numerous products are on the market and new developments are constantly being advertised. The successful marketing of mascara necessitates the coordination of several factors and only the perfect interplay of brush, formulation, container and packaging will result in a top-quality product.

Eyelash Volume

A mascara’s quality is measured by its ability to make individual eyelashes appear longer, thicker and darker. If this effect is successfully realised by applying successive layers of mascara, an increase in volume can be gradually achieved. Not only exclusive high-price brands employ advertising slogans claiming that they “give your eyelashes up to x times more volume” but also considerably cheaper products.

But how can it be that they all promise the same thing, and how is the actual value determined? The effect is usually based on the subjective impression of test persons, who use and evaluate the product over a certain amount of time. This evaluation can also be given by trained persons, which, however, is nothing more than a subjective judgement on a higher level. Although the use of the term ‘volume’ seeks to suggest a measurable, mathematical factor, what it actually refers to is the overall impression of the eyelashes’ appearance.

We take a different approach and present an objective and quantifiable efficiency test, to corroborate the term ‘volume’ with measurable values. It is, however, not a simple matter of determining actual eyelash volume, in the sense of a mathematical value, since it is necessary to consider a wide range of parameters, such as the length, thickness and number of individual eyelashes, as well as irregularities in mascara adhesion. It is theoretically possible to expend the level of effort required to determine volume in this way but the results would not generally justify the procedure.