

Lipstick/lipgloss – in vitro flexibility test

Test aim: This empiric test is applied to lipsticks and lip glosses in order to assess the adherence degree of the product's film on a surface simulating lips, even in stress conditions. The simulating surface consists in a rubber characterised by a definite superficial rugosity and on which a homogenous film of the product is spread.

Scheme of test performance:

- ❑ Cut some strips of rubber (2.54 cm of breadth), from the following product: "Ansel Edmont Industrial Technician Gloves #390 size 9", avoiding creases and thumb. A square of 2.54x2.54 cm is then to be delimited at the centre of the strip.
- ❑ Record the initial weight of the strip and the weight of the cosmetic film - initially applied on the area circumscribed inside the strip, on its rough side. The final weight of the cosmetic film (after 24 hours permanence at 23 ± 2 °C, $50 \pm 5\%$ RH) must be equal to 20 ± 2 mg.
- ❑ The strip is placed on a proper support which allows controlled stretching (extension must continue until the strip side in traction – initially equal to 2.54 cm - measures 4.45 cm). The surface is then rubbed by a suitable pencil. After this operation the strip is removed and weighted.
- ❑ The percentage of removed film is calculated.
- ❑ The trial must be repeated at least 10 times for every tested cosmetic formulation.

Analysis and assessment of results: The result is expressed as a % average of removed film. A low value of APWL (Average Percent Weight Loss) corresponds to flexible films, in terms of adhesion and cohesion.

Method: Patent nr. "US 6,340,466 B1".

Documentation: a report is compiled with the following structure: identification — results — signature.