CASE STUDY

EXPERIENCE THE DIFFERENCE: HELP EXPAND THEIR LASHES, NOT YOUR PACKAGING

Imparting Wettability, Adhesion and Barrier Properties to Mascara Packaging

Challenge: Mascara product and its packaging are challenged with issues related to permeation of ingredients into the plastic, durability of inks, labels, and other decorative items, accurate dispensing of product onto the applicator and transfer to the lashes. This ultimately affects the quality of the product and the shelf-appeal of its packaging.

“REACTIVE GAS TECHNOLOGY™ PERMANENTLY MODIFIES THE SURFACE OF MASCARA PACKAGING (ROD, WIPER, BRUSH, TUBE) MAKING THEM SUBSTANTIALLY MORE RESISTANT TO THE PENETRATION OF VOLATILE AND VALUABLE FORMULATION INGREDIENTS”

CHALLENGE

The development of a mascara product is comparable to a symphony where the rod, wiper, brush and formula must all come together in a harmonious fashion to give an appealing experience to the user.

Marketed in three forms – liquid, cake, or cream – mascara ingredients may vary, but most modern formulas contain pigments, oils, waxes, and preservatives. Certain mascara ingredients tend to permeate through plastic. This causes many brands to experience issues with swelling, de-labelling, and damage to the package decorative components. Ingredient migration into plastic disrupts the carefully composed mascara formulation. Together, permeation issues compromise both product performance and shelf-appeal.

The ability to control the quantity, uniformity, and transfer of mascara is another important challenge. This applies to dispensing product from the tube, through the wiper, and onto the brush to the eyelashes.

PROCESS / COLLABORATION

Inhance’s Reactive Gas Technology™ permanently modifies the surfaces of mascara packaging (rod, wiper, brush, tube) making them substantially more resistant to the penetration of valuable formulation ingredients. This increased barrier ensures the retention of the product value and quality through the supply chain and to the customer.

Mascara applicators are also known to inconsistently hold the desired amount of mascara. Packaging designers instituted the usage of a wiper on mascara tubes to ensure that similar quantities of the product are dispensed. These packaging components are an additional source of product loss via the packaging. However, due to the 360° coverage provided by our Reactive Gas Technology™, these vital packaging structures are protected from the permeation of ingredients and are given an improved adhesion characteristic that helps the formula to cling to the wiper and to go back into the bottles (versus spilling out of the container).
Polymeric brushes are constantly being improved to help transfer the desired amount of mascara to the user and enable a consistent experience. Inhance’s Reactive Gas Technology™ treatment allows for better wicking and wetting across the surface of the brush enabling a more uniform coverage of the formulation.

In the innovative mascara market, consumers are more concentrated on results than brand loyalty causing trends to change in the blink of an eye – packaging is the key to successful marketing brand expansion.

RESULTS

Inhance solutions help to ensure that mascara value and quality reach the customer intact while enhancing the overall experience by reducing permeation of valuable ingredients through the tube walls, strengthening the adhesion to the wiper, and improving the wettability of the applicator.

KEY BENEFITS

- Reduce chemical permeation into packaging, preserving product compositions and eliminating product loss
- Superior barrier against leaching / migration from packaging which can contaminate valuable formulations
- Eliminates swelling, de-labelling, (flagging) or other damage to package decoration
- Improve applicator hold, enhance wettability and pick-up, ensuring even coverage
- Enhance adhesion properties improving surface printability

APPLICATIONS

- Solvents packaging
- Personal care packaging
- Cosmetics creams
- Shower creams
- Skin Care Products
- Toothpaste
- Perfumes
- Elastomers
- Household Products

ADDRESSABLE PACKAGING CONTENTS

- Isoparaffin (C10-11, C10-13, C11-12, C11-13, C12-14, C12-20, C13-16)
- Decane
- Dodecane
- Heptane
- Isododecane
- Limomene
- Oils (Arachis Hypgaea, Acena Sativa Kernel, Cocos Nucifera, Lanolin, Papaver Orientale Seed, Zae Mays)
- Toluene
- Xylene

Inhance Technologies solutions’ can be applied in a number of industries to improve product performance and sustainability.