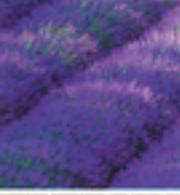


Surface treatment technology

| | COMPOSITION | COATING TYPE | CHARACTERISTICS | APPLICATIONS | USE | | | |
|---|--|--|---|--|--|----------------|--|---|
|  | APPLE Active Plant Lipid Extract | jasmine extract (<i>Jasminum officinale</i>), rose extract (<i>Rosa damascena</i>), mimosa wax (<i>Acacia dealbata</i>), soybean oil, cocoyl sarcosine | mechanical, high-shear, monomolecular wax layer | a natural treatment that complements the skin's own protective lipids, increases substantivity, adds softness and lubricity, and provides some hydrophobicity. | pressed powders, face foundations, particularly effective in matte shades | USA, EU, Japan | APPLE Active Plant Lipid Extract |  |
|  | AQ Dimethicone Copolyol | dimethicone copolyol | chemical bond | an extremely hydrophilic treatment with high-shear resistance. AQ treated pigments are dispersed easily into water. Improved color development and suspension stability. | liquid make-ups, mascara | USA, EU, Japan | AQ Dimethicone Copolyol |  |
|  | AS Alkyl Silane | alkyl silane | chemical bond | an extremely hydrophobic treatment with high-shear resistance, and no potential for hydrogen. AS treated pigments are dispersed easily into oils and silicones, occlusive coating prevents water uptake. | liquid make-ups, pressed powders, mascaras, wet/dry compacts, hot pours, coating for inorganic sunscreens to facilitate dispersing and provide chemical resistance | USA, EU, Japan | AS Alkyl Silane |  |
|  | BN Boron Nitride | boron nitride | electrostatic attraction | BN treatment prevents agglomeration, creating excellent slip and lubricity resulting in a luxuriously soft feel. | pressed and loose powders, anhydrous formulations, including lipsticks and hot pours | USA, EU, Japan | BN Boron Nitride |  |
|  | FHC Fomblin® HC | polyperfluoromethyl isopropyl ether | surface energy | a chemically inert coating that creates a velvety feel on the skin. lipophobicity and hydrophobicity provide exceptional wear characteristics. | pressed powders, slurry systems, liquid make-ups, lipsticks | USA, EU, Japan | FHC Fomblin® HC |  |
|  | LL Lauroyl Lysine | lauroyl lysine | mechanical high-shear | a natural treatment with a pH similar to that of the skin provides a silky smooth feel. | pressed and loose powders, face foundations, pigment emulsions | USA, EU, Japan | LL Lauroyl Lysine |  |
|  | MM Magnesium Myristate | magnesium myristate | chemical deposition | a hydrophobic, shear resistant treatment rendering excellent adhesion and pressibility, cost effective. | mass-market pressed powders, liquid make-ups, mascaras | USA, EU, Japan | MM Magnesium Myristate |  |
|  | NFW Natural Flower Wax | available waxes: lavender, sage, chamomile | mechanical, high-shear, high-temperature, monomolecular wax layer | the same wax barrier generated naturally by flowers to prevent moisture loss offers softness and a less drying pigment with excellent pressing characteristics. | pressed and loose powders, liquid make-ups | USA, EU, Japan | NFW Natural Flower Wax |  |
|  | SI Silicone | highly polymerized methylsiloxane | chemical bond | a very hydrophobic treatment with high shear-resistance, allows high pigment loading, is easily dispersed in oils and silicones, and | liquid make-ups, wet/dry applications, pressed powders, anhydrous formulations | USA, EU, Japan | SI Silicone |  |

cardre inc.
pigment technologies

2500 B hamilton boulevard, south plainfield, nj 07080 usa
908-769-5300 • fax 908-769-5112
email: info@cardre.com • www.cardre.com