

# RFHC

## Reactive Fomblin®

### Surface Treatment Series

**CAS#:** 162567-74-0

**EINECS#:** Polymer (n/a)

**COATING TYPE:** Chemical bond

**APPROVED FOR:** EU, USA, Japan

#### treatment characteristics

Cardre RFHC treatment is designed to enhance pigment compatibility with long-wearing cosmetic formulations. This chemically and biologically inert perfluoro treatment is highly lipophobic, hydrophobic and thermally stable. RFHC's tight bond with the particle surface ensures pigment coating integrity in the final product. The low surface energy of RFHC improves pigment slip, smoothness, and product payoff.

In pressed powders, RFHC treated pigments prevent oil breakthrough and resist moisture uptake to improve wear and eliminate the shade drifts associated with the absorption of perspiration or sebum. Glazing is minimized, payoff is improved, and a noticeable flow and smoothness is imparted to the pigments.

RFHC treated pigments can be incorporated into the oil phase of liquid make-ups to improve wear. Pigment lipophobicity and hydrophobicity insures against moisture uptake, oil breakthrough, and the resulting shade drifts.

In conventional or solvent based lipsticks, RFHC treated pigments are protected from saliva moisture, and the mechanical action of the lips, thus improving wear. Lipsticks utilizing RFHC treatments exhibit smooth, even payoff, enhanced adhesion, and enduring color that maintains a fresh appearance.

#### lipstick formulation

The following formulation has been developed to demonstrate the compatibility of RFHC treated pigments with long-wearing applications. The resulting lipstick maintains color freshness as the pigments are not affected by moisture from the saliva. Payoff is improved, and smoothness in application and spreadability is superior to what could be expected with untreated pigments.

#### lipstick formulation

(3) 72276 Cardre D&C Red 7 Ca Lake RFHC	2.75%
(3) 72261 Cardre Red Iron Oxide RFHC	0.75
(3) Biron ESQ ( <i>Rona</i> )	6.00
(4) Flamenco Pearl ( <i>Mearl</i> )	8.00
(1) Octyl Palmitate	10.00
(1) Castor Oil	6.20
(1) Ozokerite 170D ( <i>Ross</i> )	10.00
(1) Microwax 214 ( <i>Ross</i> )	6.00
(1) Carnauba Wax	4.00
(1) Methylparaben	0.20
(1) Propylparaben	0.10
(2) TBF 505 Cyclomethicone ( <i>Path</i> )	42.00
(2) Ultrabee ( <i>J.W. Hanson</i> )	4.00
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	100.00%

#### Lab procedure:

1. Combine waxes, oils and preservatives (1), and heat to 85°-90°C with mixing until homogeneous.
2. Stir phase (2) until homogeneous.
3. Hold temperature of (1) at 80°C and stir in (2) until homogeneous.
4. Add pigments (3) and stir at 80°C for 15 min. until homogeneous.
5. Pass mix of (1), (2), and (3) through 3 roll mill 2 times at a tight setting.
6. Reheat mixture until liquid, and add (4) stir until pigment is wetted.
7. Pass through 3 roll mill 1 time with mill set at wider tolerance.
8. Melt bulk and pour sticks.

**cardre inc.**  
pigment technologies

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