

# NuLastic™ SILK-E ELASTOMERS

*“Efficiency, Emulsification and Emollient Extended Wear”*

## **NuLastic SILK-E-ID-LSA** INCI Name: Isododecane (and) Polysilicone-23

The first in a series of high molecular weight silicone elastomers reacted with amino functional polyurethanes that deliver innovative chemical and physical properties. These unique polymers help provide multifunctional benefits in formulation development while delivering outstanding emolliency and other aesthetic features:

### **Formulation Efficiency**

The amine component of the **NuLastic SILK-E ID-LSA** reacts under acidic conditions:

- unique polymeric neutralization
- can be combined with other neutralizers
- reacts with polyacrylate and other acids in water
- reduces the tack of polyacrylic acid hydrogels
- unique silicone gel form
- increases pH
- improves adhesion due to polymeric network

### **Emulsification Efficiency**

After protonation, **NuLastic SILK-E ID-LSA** is rendered surface active in polyacrylic acid systems:

- compatibility with other emulsifiers
- water/silicone and water/silicone/water systems
- cationic co-emulsifier
- solubility with polar and non polar solvents and waxes

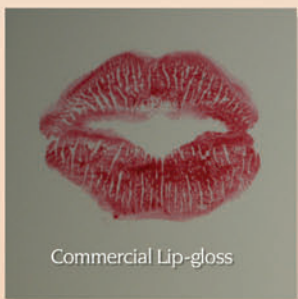
### **Emollient Extended Wear**

Due to hydrogen bonding **NuLastic SILK-E ID-LSA** contributes to products that are **Transfer Resistant, Water Resistant and Long Wearing:**

- forms non-resinous waterproof permeable films
- allows diffusion onto-into the substrate
- creates a cohesive emollient matrix
- anchors the elastomer to the skin
- entraps and delivers actives, pigments, pearls and organics
- aids in pigment wetting and even color payout
- enhanced adhesion

### **Effectiveness at Low Polymer Concentrations**

**NuLastic SILK-E ID-LSA** can be used with or without other cosmetic film formers:



### **End-Use Applications**

**NuLastic SILK-E ID-LSA** elastomers can add durability and long wear properties to a wide range of products:

- Anhydrous Lip Gloss
- Emulsion Lip Gloss
- Lipsticks
- Anhydrous Foundations
- Mascaras
- Creams
- Liquid Make-up
- Pencils
- Lotions
- Eye Shadows
- Eyeliners
- Gels

# NuLastic SILK-E ID-LSA Formulary

## Extended Wear Lip-Gloss

jrm1-33E

INGREDIENT	INCI NAME	W/W%
<b>PHASE A</b>		
NuLastic Silk-E ID-LSA	Isododecane and Polysilicone 23	19.50
Isododecane	Isododecane	34.50
JRM1-4 Grind	(See Below)	15.00
Dermol DISM	Diisostearyl Malate	4.00
Polyderm PPI-PE	Polydiethylene Glycol Diadipate/IPDI Copolymer	3.00
<b>PHASE B</b>		
TMS-803	Trimethylsiloxysilicate	6.00
Bentone Gel ISD V	Disteardimonium Hectorite and Isododecane and Propylene Carbonate	10.00
<b>PHASE C</b>		
Kobo Mica S-25	Mica	3.00
Kobo KTZ Fine White 11S2	Mica (and) Titanium Dioxide (and) Triethoxycaprylsilane	5.00
		<b>Total 100.00</b>

### JRM1-4 GRIND:

Red 7 AS	Red 7 Lake (and) Perfluorooctylethyl Triethoxysilane	22.40
Red Ox. AS	Iron Oxide (C.I. 77492) (and) Perfluorooctylethyl Triethoxysilane	23.50
Black Ox. AS	Iron Oxide (C.I. 77499) (and) Perfluorooctylethyl Triethoxysilane	1.90
Dermol DISM	Diisostearyl Malate	52.20
		<b>Total 100.00</b>

## Extended Wear Lip-Gloss

jrm1-33F

INGREDIENT	INCI NAME	W/W%
<b>PHASE A</b>		
NuLastic Silk-E ID-LSA	Isododecane and Polysilicone 23	35.00
Isododecane	Isododecane	35.00
JRM1-4 Grind	(See Below)	15.00
Dermol DISM	Diisostearyl Malate	4.00
Polyderm PPI-PE	Polydiethylene Glycol Diadipate/IPDI Copolymer	3.00
<b>PHASE B</b>		
Kobo Mica S-25	Mica	3.00
Kobo KTZ Fine White 11S2	Mica (and) Titanium Dioxide (and) Triethoxycaprylsilane	5.00
		<b>Total 100.00</b>

### JRM1-4 GRIND:

Red 7 AS	Red 7 Lake (and) Perfluorooctylethyl Triethoxysilane	22.40
Red Ox. AS	Iron Oxide (C.I. 77492) (and) Perfluorooctylethyl Triethoxysilane	23.50
Black Ox. AS	Iron Oxide (C.I. 77499) (and) Perfluorooctylethyl Triethoxysilane	1.90
Dermol DISM	Diisostearyl Malate	52.20
		<b>Total 100.00</b>

## Moisture Wax

jrm1-105A

INGREDIENT	INCI NAME	W/W%
<b>PHASE A</b>		
Permalene 500	Polyethylene	5.00
Waxenol 822	Arachidyl Behenate	5.00
DC 1503	Dimethicone, Dimethiconol	3.00
Wickenol 151	Isononyl Isononoate	9.00
Abil EM-90	Cetyl PEG/PPG-10/1-Dimethicone	2.00
Isododecane	Isododecane	12.00
NuLastic Silk-E ID LSA	Isododecane (and) Polysilicone 23	28.00
<b>PHASE B</b>		
DI Water	Water	35.00
<b>PHASE C</b>		
Microcare MTO	Methylisothiazolinone (and) Iodopropynyl Butylcarbamate	0.25
Simulgel EG	Sodium Acrylate/Sodium Acryloyldimethyltaurate Copolymer & Isohexadecane & Polysorbate 80	0.75
		<b>Total 100.00</b>

Manufacturing Procedures available upon request.

## Lubricious Creme

jrm1-72

INGREDIENT	INCI NAME	W/W%
<b>PHASE A</b>		
NuLastic Silk-E ID LSA	Isododecane and Polysilicone 23	7.00
Isododecane	Isododecane	13.00
DC 200 5 cst	Dimethicone	5.00
Dermol 99	Isononyl Isononoate	8.00
<b>PHASE B</b>		
Ultrez 21	Acrylates/C10-30 Alkyl Acrylate Crosspolymer	0.80
<b>PHASE C</b>		
Water	Water	64.60
<b>PHASE D</b>		
TEA 99	Triethanolamine	0.70
Euxyl 701	Phenoxyethanol (and) Benzoic Acid (and) Dehydroacetic Acid (and) Ethylhexylglycerin	0.90
		<b>Total 100.00</b>

## Aqueous Foundation

jrm1-14B

INGREDIENT	INCI NAME	W/W%
<b>PHASE A</b>		
NuLastic Silk-E ID-LSA	Isododecane and Polysilicone 23	26.00
Waxenol 822	Arachidyl Behenate	2.60
Marrix SF	Di-C12-15 Alkyl Fumarate	3.50
Abil EM-90	Cetyl PEG/PPG-10/1 Dimethicone	1.00
Isododecane	Isododecane	11.60
<b>PHASE B</b>		
Water	Water	33.20
<b>PHASE C</b>		
BTD-FS	Titanium Dioxide (and) Perfluorooctylethyl Triethoxysilane	12.00
BWYO-FS	Iron Oxide (C.I. 77492) (and) Perfluorooctylethyl Triethoxysilane	3.00
BWRO-FS	Iron Oxide (C.I. 77491) (and) Perfluorooctylethyl Triethoxysilane	0.90
BWBO-FS	Iron Oxide (C.I. 77499) (and) Perfluorooctylethyl Triethoxysilane	0.10
Mica-FS	Mica (and) Perfluorooctylethyl Triethoxysilane	3.50
SP-500	Nylon 12	1.00
DC RM 2051	Sodium Polyacrylate (and) Dimethicone (and) Cyclopentasiloxane (and) Trideceth-6 (and) PEG/PPG 18/18 Dimethicone	0.90
	Silica	0.50
Aerosil 200	Methylisothiazolinone (and) Iodopropynyl Butylcarbamate	0.20
Microcare MTO		
		<b>Total 100.00</b>

## Anhydrous Foundation

jrm1-86

INGREDIENT	INCI NAME	W/W%
<b>PHASE A</b>		
NuLastic Silk-E ID-LSA	Isododecane and Polysilicone 23	28.00
Waxenol 822	Arachidyl Behenate	5.00
Marrix SF	Di-C12-15 Alkyl Fumarate	4.00
Isododecane	Isododecane	42.00
<b>PHASE B</b>		
BTD-FS	Titanium Dioxide (and) Perfluorooctylethyl Triethoxysilane	12.00
BWYO-FS	Iron Oxide (C.I. 77492) (and) Perfluorooctylethyl Triethoxysilane	3.00
BWRO-FS	Iron Oxide (C.I. 77491) (and) Perfluorooctylethyl Triethoxysilane	0.90
BWBO-FS	Iron Oxide (C.I. 77499) (and) Perfluorooctylethyl Triethoxysilane	0.10
Mica-FS	Mica (and) Perfluorooctylethyl Triethoxysilane	3.50
SP-500	Nylon 12	1.00
Aerosil 200	Silica	0.50
		<b>Total 100.00</b>

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