



ELEVATING BEAUTY THROUGH INNOVATION™



BI-THIN™ 402 Product Data Sheet

Ellamera BI-THIN 402 is a multi-functional polymeric rheology modifier that is soluble in low polarity liquid carriers and oils, such as Isododecane and Squalane. The product enables clear, thixotropic, water-repellent gels with film forming and suspension properties.

Depending on the desired effect, adding 3-5 percent to the oil is recommended.

Ellamera BI-THIN 402 is manufactured in North America and supplied as an undusted white powder.

INCI Designation:
hydrogenated styrene/isoprene copolymer



FEATURES & BENEFITS

- **Texture/Touch**
 - Customizable texture/skin feel
 - Thixotropic rheology
 - Spreadable
 - Film forming
 - Water resistant
- **Color**
 - Customizable color effects
 - High transparency enabling truer, deeper and bolder colors
 - High gloss
 - Excellent suspension properties

POTENTIAL APPLICATIONS

- **Color Cosmetics**
 - Lip Gloss / Lipstick / Lip Liner
 - Mascara
 - Eye Shadow / Blush
 - Eyeliner
 - Foundation / Concealer
- **Skincare**
 - Mask
 - Lotion / Serum
 - Face and Body Oils/Gels
- **Haircare**
 - Oil Treatment
 - Relaxer
- **Suncare**
 - Sunscreen / Block

PROCESSING RECOMMENDATIONS

A method is to pre-heat the oil to the desired mixing temperature. While stirring, gradually add the Ellamera product to the oil. Both high shear and low shear mixing devices can be used. High shear mixing devices help disaggregate the polymeric modifier into smaller particles which eases dissolution.

The Ellamera product is dissolved once the viscosity of the solution does not increase anymore. Upon cooling the gel is formed and further formulation is possible. Applying a vacuum during processing can help prevent encapsulation of air.

Property	Value*
Specific Gravity	0.91
Styrene/Rubber ratio	28/72
Color, Yellowness Index	-1.0 to 3.0
Dissolution Temperature (°C)	70-100**

*These are typical values and should not be used to set specifications.

**Depends on the oil composition



Addition of Ellamera polymer to warm oil



Mixing under high or low shear



Gel formation upon cooling down

