



Kobo WINS Suppliers' Day/CEW Award

FOR INNOVATION IN BEAUTY WITH:
KSL-379

4 in 1 Multi-Purpose Sunscreen Cream

Refreshing Moisture

Unique Gel Technology

UVA/UVB Protection

Mineral Sunscreen

Radiance

Fine, Vibrant KTZ® Pearl

Neutralizing

Blend of Pearlescent Pigments
and Transparent Iron Oxides
for All Skin Types



Testing:

SPF: in vivo on 3 subjects
CW: FDA method

Formulation:

Part 1		
● Deionized Water		55.80%
Part 2		
● Zemea® - Du Pont & Tate: <i>Propanediol</i>	2.90%	
● Veegum® HV - R.T. Vanderbilt: <i>Magnesium Aluminum Silicate</i>	0.50%	
● Keltrol® CG - CP Kelco: <i>Xanthan Gum</i>	0.10%	
Part 3		
● OMQP50XZ4 - Kobo Products: <i>Zinc Oxide (And) Octyldodecyl Myristate (And) Polyhydroxystearic Acid (And) Methicone</i>	23.00%	
● Protachem™ CTG - Protameen: <i>Caprylic/Capric Triglyceride</i>	3.90%	
● Protachem™ ISP - Protameen: <i>Isostearyl Palmitate</i>	3.20%	
Part 4		
● KTZ® FINE WHITE - Kobo Products: <i>Mica (And) Titanium Dioxide</i>	0.70%	
● GCG50TYSG - Kobo Products: <i>Iron Oxides (CI 77491) (And) Caprylic/Capric Triglyceride (And) Polyglyceryl-3 Diisostearate (And) Stearoyl Glutamic Acid</i>	0.50%	
● GCG50TRSG - Kobo Products: <i>Iron Oxides (CI 77492) (And) Caprylic/Capric Triglyceride (And) Polyglyceryl-3 Diisostearate (And) Stearoyl Glutamic Acid</i>	0.15%	
● KTZ® EBONY - Kobo Products: <i>Iron Oxides (CI 77499) (And) Mica</i>	0.05%	
Part 5		
● Lipomulse® Luxe - Lipo Chemicals: <i>Cetearyl Alcohol (and) Glyceryl Stearate (and) PEG-40 Stearate (and) Cetearith - 20</i>	3.30%	
Part 6		
● Xiameter® PMX-200 Silicone Fluid 5CS - Dow Corning: <i>Dimethicone</i>	1.00%	
Part 7		
● Simulgel™ EG - Seppic: <i>Sodium Acrylate/Sodium Acryloyldimethyl Taurate Copolymer (And) Isohexadecane (And) Polysorbate 80</i>	4.00%	
● SymDiol® 68 - Symrise: <i>1,2-Hexanediol (And) Caprylyl Glycol</i>	0.90%	

Manufacturing Procedure

- 1. Main Beaker - Water Phase**
 - Pre-weight DI Water and slowly sprinkle Magnesium Aluminum Silicate, hydrate colloid for 30 minutes.
 - Pre-weight humectant in the side beaker and add Xanthan Gum, mix well
 - Add mix of humectant and Xanthan Gum into main beaker, start to heat up water phase to 80°C, mix with propeller mixer.
- 2. Using a High Shear blade combine Part 3 in the support beaker and mix until uniform. Add Part 4.**
- 3. Add Part 5 to Oil Phase (Parts 3 and 4) - heat up to 80°C, mix until full color development is done.**
- 4. Add Part 6 to Oil Phase (Parts 3, 4 and 5) just before emulsification process starts.**
- 5. Slowly add Oil Phase (Parts 3, 4, 5 and 6) to Water Phase (Parts 1 and 2), continue mixing with High Shear blade until emulsion is formed.**
- 6. Air cool batch to 45°C. Separately add each ingredient of Part 7 to the batch at 45°C.**
- 7. Force cool batch down to 30°C. Stop mixing, transfer to storage containers.**

Description

This O/W 100% mineral sunscreen formula contains Kobo's Zinc Oxide Dispersion, **OMQP50XZ4** which is a skin protector - UVA/UVB filter. It contains approximately 48% of nano Zinc Oxide (whose primary particle size is 20 nm and aggregate particle size is 171 nm) in an ester/oil carrier. **KTZ® FINE WHITE** is pearlescent white colored mica, which improves natural glow and coverage on the skin. **KTZ® EBONY** is a black pearlescent pigment, containing a high concentration of Black Iron Oxide on natural mica, working to make the shade in combination with Transparent Iron Oxides, **GCG50TYSG** and **GCG50TRSG**.