

KAO SOFCARE®

GP-1

**EXCELLENT HAIR SHINE
CUTICLE REPAIR
MORE SMOOTHNESS
BEAUTIFUL HAIR TIPS
EASY TO MANAGE
SILICONE-LIKE TEXTURE IN DRY STAGE
EASY HAIRSTYLE**

**OUTSTANDING CONDITIONING
AGENT FOR PERSONAL CARE
PRODUCTS**

KAO SURFACTANTS TECHNOLOGY AT YOUR SERVICE



SHAMPOOS

HOW TO FORMULATE

KAO SOFCARE® GP-1 is easily incorporated after the addition of the main surfactants at room temperature, which results into a transparent formulation. Thereby, in comparison to silicone-based products, there is no need to add a polymer to obtain a good stability neither a pearling agent to mask turbid appearance.

The pictures illustrate the results of adding 1% of conditioning agent to a model shampoo formulation with Sodium Laureth Sulfate, Cocamidopropyl Betaine, AMIDET® N (Cocamide DEA replacement) and Polyquaternium-10. Furthermore, the viscosity obtained is higher than the formulation with dimethicone. As seen in the comparative pictures, the foaming ability is also enhanced.



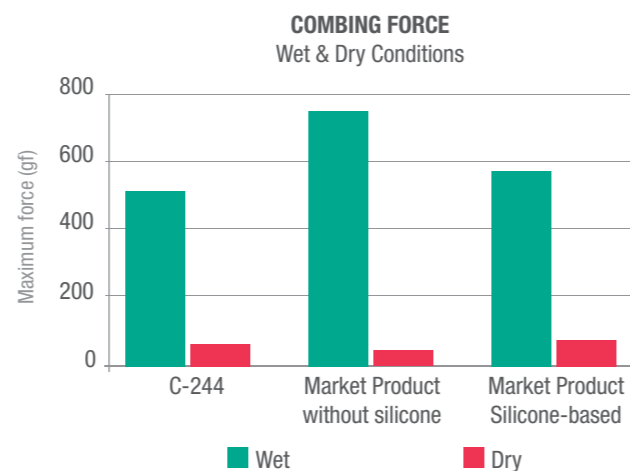
HAIR VOLUME

In comparison to non-conditioning shampoos, formulations containing dimethicone dramatically reduce the hair volume, whereas the use of KAO SOFCARE® GP-1 makes it practically invariable.

COMBING FORCE

KAO SOFCARE® GP-1 performs similar than silicones at half concentration in wet and dry conditions. Furthermore, combing force reduction is obtained by reducing the amount of silicone and adding a small amount of KAO SOFCARE® GP-1. These results confirm the formulator's benefits of using KAO SOFCARE® GP-1 as silicone alternative or as silicone booster.

The following graphic compares the combing force of two market products and a silicone-free formulation (C-244) which contains KAO SOFCARE® GP-1.

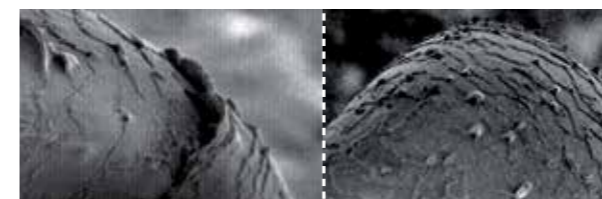


Ref. C-244

Ingredient	%
EMAL® 270D Sodium Laureth Sulfate	16.4
AKYPO® RLM 45CA Laureth-6 Carboxylic Acid	4.2
BETADET® HR Cocamidopropyl Betaine	8.3
AMIDET® N PEG-4 Rapeseedamide	1.5
KAO SOFCARE® GP-1 PPG-3 Caprylyl Ether	0.6
QUARTAMIN® AB Behentrimonium Chloride	0.6
MERQUAT® 550 Polyquaternium-7	1.11
UCARE® LR-400 Polyquaternium-10	0.4
Preservative	q.s.
Deionized Water	Up to 100

REPAIRING: SHINING

Hair can be physically and chemically damaged in our day-to-day activities. KAO SOFCARE® GP-1 uniformly adsorbs and coats on the hair surface, as seen in the SEM images. As a result, it repairs hair cuticles leading to a stronger and more shining hair.



Dimethicone 1.0% (BY22-029, 100.000mm2/s) KAO SOFCARE® GP-1 1.0%

Ref. C-243

Ingredient	%
PEARLED SILICONE-FEEL CONDITIONING SHAMPOO	
EMAL® 270D Sodium Laureth Sulfate	18.6
AMIDET® N PEG-4 Rapeseedamide	1.0
BETADET® S-20 Lauryl Hydroxysultaine	3.0
BETADET® THC-2 Disodium Cocoamphodiacetate	1.6
KAO SOFCARE® GP-1 PPG-3 Caprylyl Ether	0.75
SOFCARE® KG-101E Polyquaternium-52	0.8
DANOX® PL-10 Pearling Agent	4.0
NaCl	0.5
Preservative	q.s.
Deionized Water	Up to 100

MANAGEABILITY AND STYLING

As a result of the excellent uniform adsorption of KAO SOFCARE® GP-1 on the hair, hair manageability can be improved and controlled from roots to tips, hair becomes smoother and hair style lasts longer. As seen in the comparative pictures, KAO SOFCARE® GP-1 helps to make curly hair style easily by hand blow when incorporated in hair shampoos. It also helps styling by using a hot curler.



Model shampoo KAO SOFCARE® GP-1



Model shampoo KAO SOFCARE® GP-1

CONDITIONERS

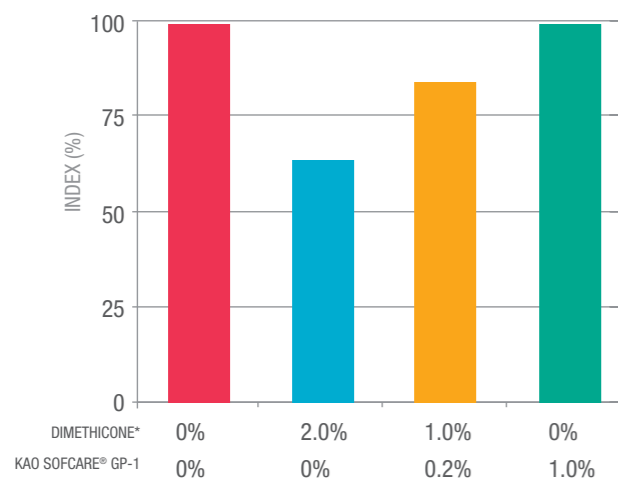
HOW TO FORMULATE

KAO SOFCARE® GP-1 can be added easily into hair conditioner formulations, after the emulsification step at 40°C. Higher amounts of KAO SOFCARE® GP-1 can be incorporated compared to silicones without stability problems and achieving higher viscosities, which improve product handling and spreading it on hair.

HAIR VOLUME

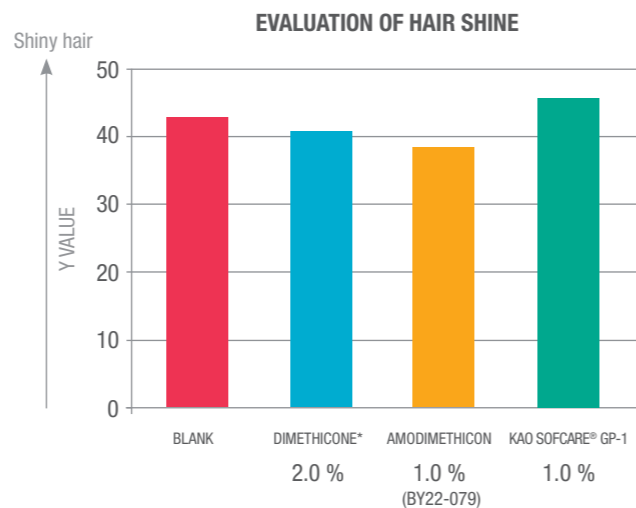
The incorporation of KAO SOFCARE® GP-1 in a conditioner will prevent the hair from losing its original volume as seen in the graphic. Furthermore, the reduction of hair volume using the combination of 1% dimethicone and 0.2% KAO SOFCARE® GP-1 is cut to half in comparison with a 2% silicone-based conditioner.

HAIR VOLUME TEST



SHINING

KAO SOFCARE® GP-1 imparts hair shine, obtaining better results than silicone even at lower concentrations.



The results are also macroscopically seen in a real salon test illustrated by the following picture.



Dimethicone*: BY22-029, 100.000mm2/s.

MANAGEABILITY

As commented in the Shampoo section of the leaflet, the manageability is greatly improved thanks to the uniformity in which KAO SOFCARE® GP-1 adsorbs onto the hair. As seen in the image below, not only the hair body gets more homogeneous but the hair tips are more easily managed.



Ref. C-242

VOLUME UP CONDITIONER SILICONE-FEEL	%
KALCOL® 6850 Cetearyl Alcohol	3.0
TETRANYL® CO-40 Dioleyloylethyl Hydroxyethylmonium Methosulfate	1.62
KAO SOFCARE® GP-1 PPG-3 Caprylyl Ether	1.0
AMIDET® APA-22 Behenamidopropyl Dimethylamine	0.64
Glycerin	2.0
Isopropyl Myristate	0.5
Lactic Acid 90%	0.15
Preservative	q.s.
Deionized Water	Up to 100

Ref. C-219

AGING CARE CONDITIONER SILICONE REDUCTION	%
KALCOL® 6850 Cetearyl Alcohol	3.0
AMIDET® APA-22 Behenamidopropyl Dimethylamine	1.5
KAO SOFCARE® GP-1 PPG-3 Caprylyl Ether	1.0
Abil® Quat 3272 Quaternium-80	1.0
Dermofeel® E74A Tocopheryl Acetate	0.3
Provit® 50 D-Panthenol	0.5
Lactic Acid 90%	0.3
Preservative	q.s.
Deionized Water	Up to 100

KAO CHEMICALS EUROPE

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Enriching lives,
in harmony with nature.

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