

NIKI VITAROSE FOUNDATION SPF 12

by: ZAHARIAH ISMAIL; ROSNAH ISMAIL
and SALMIAH AHMAD

JUNE 2004

248

MPOB TT No. 246

MPOB INFORMATION SERIES

ISSN 1511-7871

Liquid foundation is pigment dispersed in an emulsion system. Nowadays coated pigments are commonly used in most colour cosmetics. It has shown good properties in terms of easy application, well distribution onto the face, and colouring effect (Hollenberg, 2002). Besides the pigment, other raw materials incorporated in a liquid foundation are fillers, rheological modifiers, UV filters and active ingredients. In this technology, a liquid foundation enriched with vitamin E, collagen, and a combination of organic and inorganic UV filters is formulated for niche market. The UV filters act as preventive agent against photoaging, vitamin E plays an important role as antioxidant against destroyed elasticity tissue and collagen is a powerful moisturizing agent for the external layers of the epidermis, increasing cutaneous tonicity and elasticity. When applied to healthy skin, collagen smoothens cutaneous relief without changing its network but for damaged skin, it is able to restore the cutaneous surface to its normal structure (Kimura *et al.*, 1988; Montero *et al.*, 1990; Sato *et al.*, 1989).

This paper described the properties of the liquid foundation containing the three specialty ingredients to be marketed as Vitarose Foundation SPF 12. They are available in three colour tones namely light, beige and tan (Figure 1).

PHYSICAL PROPERTIES

Three colour shades of liquid foundations were developed namely light, beige and tan. Their



Figure 1. Three tones of liquid foundations.

physical properties were compared against commercial sample as shown in Table 1. All of them were stable in all conditions after three months storage. By *in vitro* method, these liquid foundations were found to have SPF value of 12. The liquid foundations are formulated with skin pH ranged from 6.5 to 6.6, in a smooth and soft base. Figure 2 showed a plot of viscosity and thixotropy versus shear rate of the liquid foundations. In terms of viscosity, all of them showed shear thinning properties and the thixotropy results showed good spreading properties.

ADVANTAGES OF PALM-BASED LIQUID FOUNDATION SPF 12

- Formulated with skin pH in a smooth and soft base.
- Enriched with collagen to restore the cutaneous surface to its normal structure.

ISSN 1511-7871



9 771511 787001

Malaysian Palm Oil Board, Ministry of Plantation Industries and Commodities, Malaysia
P. O. Box 10620, 50720 Kuala Lumpur, Malaysia. Tel: 03-89259155, 89259775, Website: <http://mpob.gov.my> Telefax: 03-89259446



TABLE 1. PHYSICAL PROPERTIES OF LIQUID FOUNDATIONS AND COMMERCIAL SAMPLE

Evaluation	Light	Beige	Tan	Commercial 1
Stability test (RT, 45°C and freeze/thaw)	Stable	Stable	Stable	Stable
Sun protection factor (SPF) value	12 +	12 +	12 +	6+
pH	6.51	6.57	6.62	7.3

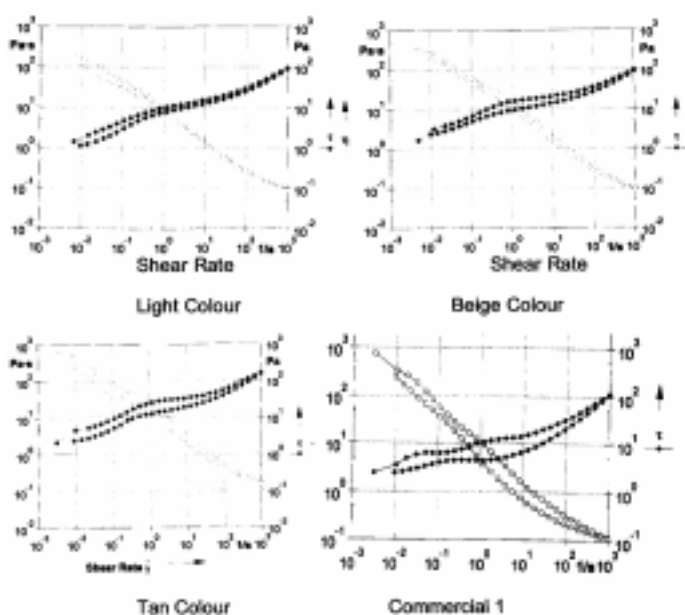


Figure 2. Liquid foundations versus commercial sample.

- Enriched with vitamin E as antioxidant to reduce irritation and neutralize harmful free radicals that can cause premature skin aging and wrinkles.
- Enriched with sunscreen agents to block harmful radiation from sunlight.
- By *in vitro* method, the SPF value is 12.
- Spreads smoothly, easily and covers well without tacky – after feel on the skin.

REFERENCES

HOLLENBERG, J (2002). Surface treatment of cosmetic pigments. *Cosmetics and Toiletries*, 117(1): 51-58.

KIMURA, S; SHU, S P; MATSUI, R; SHIJOH, M; TAKAMIZAWA, S (1988). Characterization of fish muscle. Type I. Collagen. *J. Food Science*, 53 (95): 1315-1318.

MONTERO, P; BORDERIAS, J; TURNAY, J and LEYZARBE, M A (1990). Characterization of hake (*Merluccius L.*) and trout (*Salmo irideus* Gibb) collagen. *J. Agric. Food Chem.* 38: 604-609.

SATO, K; YOSHINAKA, R and SATO, M (1989). Hydroxyproline content in the acid-soluble collagen from muscle of several fishes. *Bull. Japan Soc. Sci. Fish, Nippon, Suisan Gakkaishi*, 55(8): 1467.

SATO, K; YOSHINAKA, R; SATO, M and TOMITA, J (1989). *J. Food Science*, 54(6): 1511-1514.

For more information kindly contact:

Director-General
MPOB
P. O. Box 10620
50720 Kuala Lumpur, Malaysia.
Tel: 03-89259155, 89259775
Website: <http://mpob.gov.my>
Telefax: 03-89259446