

There are three main types of bar soaps - opaque, translucent and transparent. The latter two are becoming increasingly important and gaining market share. They have an aesthetic appeal and are much milder than opaque soaps. Between them, transparent soap is more popular and commercially more attractive to produce. Consumers associate transparency with purity and naturalness, and to contain less undesirable components and being easier to rinse.

The transparency in soap is achieved by mixing in a moisture absorbing component with some volatile components. In addition, the raw materials are stringently sought - every ingredient has to be pure, colourless and compatible in the system for the clarity of untinted glass. Commercial transparent soap is mostly made from petroleum- or tallow-based feedstock. However, MPOB has used palm-based materials, perfumed with flowery/fruity fragrances for increased attraction.

PALM-BASED TRANSPARENT SOAPS WITH PERFUME

Five perfumes (*i.e.* Kiwi A, Red Grape, Mixed Apricot, Love Lavender and Lady Jasmine) were added to palm-based transparent soaps (*Figure 1*), produced by neutralizing fatty acids, with glycerine added to impart transparency.



Figure 1. Palm-based transparent soaps with perfume.

PROPERTIES OF PALM-BASED TRANSPARENT SOAPS WITH PERFUME

The palm-based soaps were measured for their pH, hardness and transparency, for comparison with a commercial product (*Table 1*). The palm-based soaps were as hard as the commercial soaps, but much more transparent.

TABLE 1. PROPERTIES OF PALM-BASED PERFUMED *vs.* COMMERCIAL TRANSPARENT SOAP

Soap with fragrance	pH (1% solution)	Hardness (penetration depth, mm)	Transparency value (index)
Palm-based with Kiwi A	9.65	0.88	0.89
Palm-based with Red Grape	9.69	1.02	0.88
Palm-based with Mixed Apricot	9.59	1.15	0.87
Palm-based with Love Lavender	9.52	0.60	0.87
Palm-based with Lady Jasmine	9.54	1.13	0.86
Commercial soap	10.17	1.09	0.77

Notes: ¹Higher value means softer.

²Higher value means better transparency.

PERFORMANCES OF PALM-BASED SOAPS

The palm-based soaps were evaluated for their detergency, foaming power and stability for comparison with the commercial sample.

The detergency test was done on soiled silk cloth (70D-silk soiled with WKF soil/sebum) with 1.0% active ingredient in deionized water and water of 50 ppm Ca hardness. The washing test was done at room temperature (25°C). The sebum removal by the palm-based soaps was better than that by the commercial soap in both water conditions (Figure 2).

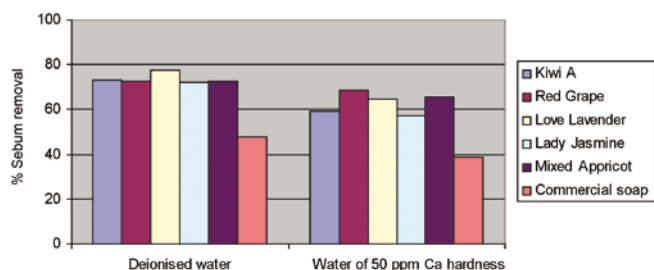


Figure 2. Percentage of sebum removal by palm-based perfumed vs. a commercial soap from soiled silk cloth in deionized water and water of 50 ppm Ca hardness.

The foaming power test was done with 0.5% active ingredient, in deionized water and in water of 50 ppm Ca hardness. In both types of water, the palm-based soaps produced more foam with greater stability (Figure 3).

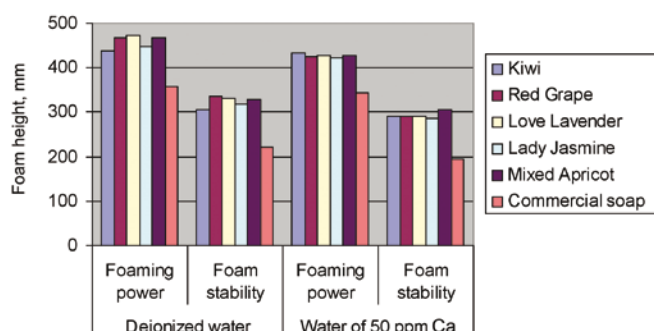


Figure 3. Foaming power and foam stability of palm-based perfumed vs. a commercial soap in deionized water and water of 50 ppm Ca hardness.

MARKET ANALYSIS

There is a strong competition between bar soaps and body wash/shower gel in the Malaysian market. However, the more affordable cheaper bar soaps have been in the market for a long time with steady sales. In 2004, sales of bath and shower products grew 2% to RM 403 million. Bar soaps dominate in the sales of bath and shower products with 70% of the value (Table 2). It is forecasted that bar soaps will continue to dominate in bath and shower products with sales estimated at RM 286 million in 2009 (Table 3).

TABLE 2. SALES OF BATH AND SHOWER PRODUCTS IN MALAYSIA BY SUBSECTOR: 2002–2004 (RM million)

Product	2002	2003	2004
Body wash/shower gel	96.7	103.5	111.3
Bar soap	279.0	280.5	281.3
Liquid soap	9.3	10.2	10.7

Source: Company research, trade interviews, Euromonitor estimates (2005).

TABLE 3. FORECAST SALES OF BATH AND SHOWER PRODUCTS IN MALAYSIA BY SUBSECTOR IN 2009 (RM million)

Product	2009
Body wash/shower gel	145.3
Bar soap	285.6
Liquid soap	12.8

Source: Euromonitor estimates (2005).

ECONOMIC ANALYSIS

- Payback period – four years.
- Return on investment (ROI) – 25%.

CONCLUSION

Palm-based transparent soaps with perfume are more transparent, and have better detergency, foaming power and foam stability than a commercial transparent soap.

For more information kindly contact:

Director-General
MPOB
P. O. Box 10620
50720 Kuala Lumpur, Malaysia.
Tel: 03-87694400
Website: www.mpob.gov.my