

PALM-BASED TRANSPARENT SOAP FOR DECORATION

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Transparent soaps are a specialty product. They are also called glycerine soaps due to the incorporation of glycerine to confer transparency, enhance the appearance and ease the soap making process. Furthermore, it gives conditioning effects to the skin. 'Transparent' implies the property of light transmission without undue scattering, so that objects placed behind a transparent soap are fully visible and discernable. The amount of light transmitted will, of course, depend on the thickness of the soap.

PALM-BASED TRANSPARENT SOAP

A palm-based transparent soap for decoration (Figure 1) was prepared by direct use of commercial soap noodles and fatty acids. In addition, a combination of polyol (e.g. glycerine) were added to impart transparency. The properties of the soap were then assessed - pH, hardness and transparency (Table 1). The palm-based soap had better transparency than commercial transparent soaps.

The detergency of the palm-based soap was tested on silk soiled cloth (70D-silk soiled with WKF soil/sebum) at room temperature (25°C) with 1.0% active ingredient and in water of different hardness (i.e. deionized water and water with 50



Figure 1. Palm-based transparent soap for decoration.

ppm hardness). The percentage of sebum removed by the palm-based soap was better than those of the three commercial soaps in both water conditions (Figure 2).

The foaming power of the palm-based soap was compared with the commercial transparent soap as room temperature (25°C) with as 0.5% active ingredient, in deionized water and water of 50 ppm hardness. The former had the best foaming power and foam stability in deionized water.

TABLE 1. PROPERTIES OF PALM-BASED TRANSPARENT SOAP FOR DECORATION VERSUS COMMERCIAL TRANSPARENT SOAPS

Sample	pH (1% solution)	Penetration depth (mm)	Transparency value
Palm-based transparent soap for decoration	10.2	1.47	0.91
Commercial A	10.1	0.85	0.77
Commercial B	9.9	2.04	0.88
Commercial C	10.2	1.35	0.86

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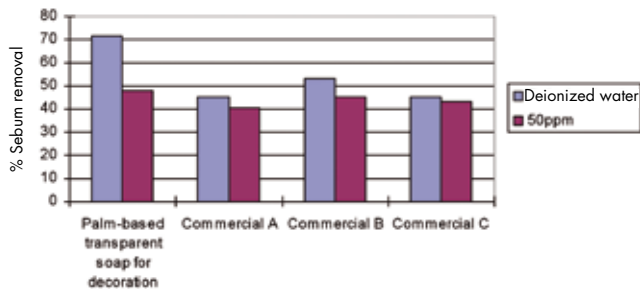


Figure 2. Sebum removal from silk soil cloth: palm-based transparent soap for decoration versus commercial transparent soaps (in deionized water and water of 50 ppm hardness).

In water of 50 ppm hardness, the former still had the best foaming power. However, the foam stability of the latter property was just about on par with the commercial soap B (Figure 3).

ECONOMIC ANALYSIS

- Payback period - 4 years.
- Return on investment (ROI) - 25%.

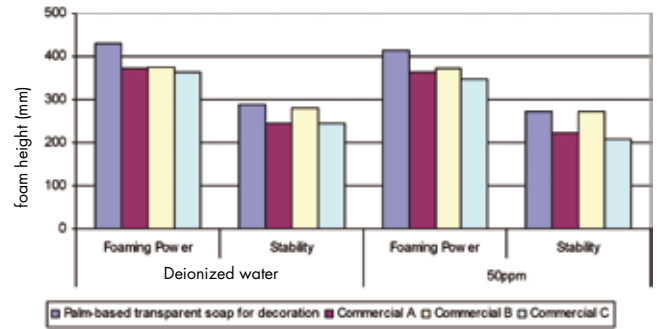


Figure 3. Foaming power and foam stability of transparent soaps: palm-based vs. commercial samples (in deionized water and water of 50 ppm hardness).

CONCLUSION

The palm-based transparent soap for decoration had the highest transparency value, and was thus more transparent than the commercial transparent soaps.

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