

COSMETIC

Rheology of "Baby" and "Adult" Shampoo



USE

Cosmetic products have different rheological behaviours depending on how they were formulated and on their use. A comparison of two different shampoos, i.e. Baby and Adult as in this example, is characteristic of this.



METHOD

After quickly warming of 1 ml of sample at 23°C with CP 4000 Peltier a flow curve from 0.5 to 200 s⁻¹ is created from the software. The resulting flow curve shows the influence of shear rate on a product's viscosity.

When the shear stress curve ($\tau = f(D)$) is a straight line through 0, the product is Newtonian and if the rheological profile is a curve, viscosity decreases under the effect of speed, the product is shear-thinning.



EQUIPMENT



RM 200
CP4000 PLUS

+

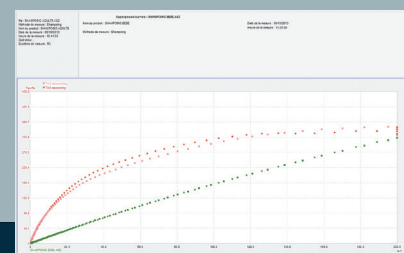


CP 4020
AC 265
Cone

+



Software



RESULTS

These two samples clearly show that "Baby" shampoo keeps the same viscosity whatever shearing it suffers, while "Adult" shampoo comes out of the bottle with a texture that is 4 times more viscous, becoming more fluid as soon as it is used, up to a viscosity that is 20 times lower than "Baby" shampoo, which will obviously be less requested.

The target audience of the two products being different, each of their requested profiles is suitable to their use.

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