

# Optimization of Tooth Paste Foaming Behaviour by Foam Tests

The foam volume of tooth paste is one of the few quality characteristics being recognisable for the user and has therefore a strong influence on the consumer's decision to buy the tooth paste again or not.

牙膏的泡沫量是消费者判断牙膏质量好坏的因素之一，也因此很大程度影响着消费者决定是否再次购买。

Investigations of tooth paste foam have shown that the subjective feeling of the cleaning effect of tooth pastes with a high foam volume is bigger than of those with a low foam volume. Beyond this, the tooth paste foam reaches parts in the oral cavity where a conventional tooth brush would not get access to. As a result, the radius of operation of the tooth paste foam increases the higher the foam volume is. Besides the foam strength the speed of the foam development and the foam stability play an important role as well.

对牙膏泡沫的调查显示，消费者在主观上会认为泡沫多的牙膏比泡沫少的牙膏的清洁效果好。不仅如此，泡沫还能到达口腔中的某些部位而牙刷一般是不能刷到的。因此，牙膏是让其能尽可能的产生更大体积的泡沫。并且，泡沫的发泡能力、发泡速度和泡沫的稳定性也很重要。

Common and inaccurate measuring methods for example the droplet method, insertion of air method and shower method cannot provide objective test results with regard to the foam's quality. A reproducible measurement with those methods is not possible, especially the measurement of the parameters foam development and foam decay, due to multiple subjective influences.

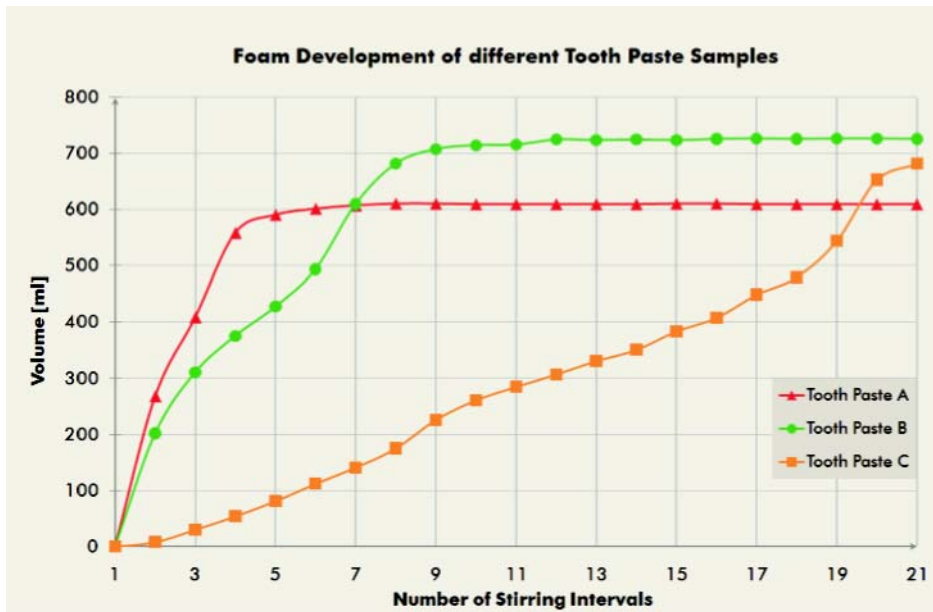
一般的不精确的测试方法例如罗氏泡沫法、充气法和淋浴法，是不能提供客观的测试数据来评定泡沫性能。用这些方法做测试很难具有重现性，特别是测试过程中的发泡性能和消泡性能，因为有多种主观因素会引起测试结果误差。

The SITA foam tester R-2000 and its patented Rotor-Foam-Method measure all data automatically whereby subjective influences caused by the user are excluded. If the device is started once, it is possible to carry out many measurement series without operating the device by the user again

德国SITA泡沫仪R-2000及其专利技术的转子起泡法可以全自动测得所有数据，完全排

SITA Messtechnik  
GmbH Gostritzer Str.  
01217 Dresden  
Germany Telefon  
+49 (0) 351 / 871 80  
41 Telefax  
+49 (0) 351 / 871 84  
64 [info@sitamesstechnik.de](mailto:info@sitamesstechnik.de) [www.sitamesstechnik.de](http://www.sitamesstechnik.de)

除了人手操作的主观影响。仪器一旦运行，可以不需要操作人员进行任何操作就能获得多组测试结果。



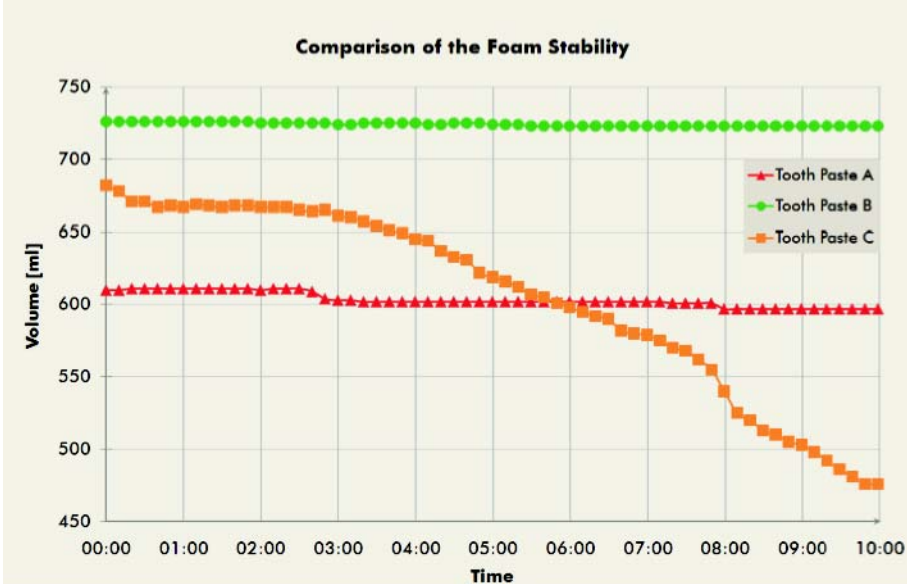
# Optimization of Tooth Paste Foaming

The SITA foam tester R-2000 carries out reproducible and efficient measurements due to a fully automatic procedure starting with analysis of the sample feeding and the analysis of the foam volume up to the cleaning of the sample reservoir. This is especially beneficial when comparing tooth pastes with each other and for an optimization of the tooth paste's formulation respectively.

德国SITA泡沫仪R-2000从开始的样品注入到泡沫逐步生成量分析到样品罐清洗，整个过程都是自动的，因此得到的测试结果是可再现和可靠的。这是非常有利于不同牙膏之间的对比和牙膏各配方的最优化。

In order to simulate realistic operating conditions, the sample can be tempered while measuring. Furthermore, a serial port on the device allows a comfortable and automatic evaluation of the test results in combination with a graphic presentation of data on the computer. The SITA foam tester R-2000 guarantees a fast, efficient and reliable test performance in order to achieve valuable results for research and development tasks as well as for quality control.

为了模拟更真实的运行环境，样品在测试过程中可作恒温水浴。更值得一提的是，机器自带的软件，可方便自动地计算测试结果，在连接的电脑上绘出图表。为了研发和质量控制能获得有价值的的数据，德国SITA泡沫仪R-2000确保为您提供了一个快速、有效、可靠的测试方案。



SITA foam tester R-2000