

VELASOFT® NE 100 for Hair Styling



COSMOS APPROVED

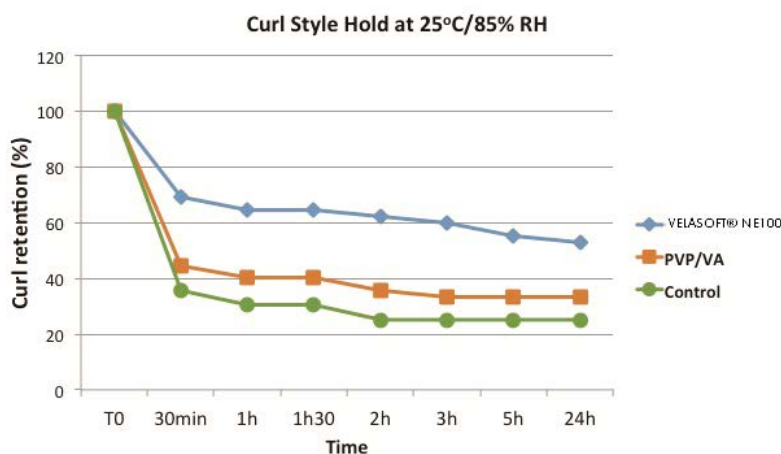
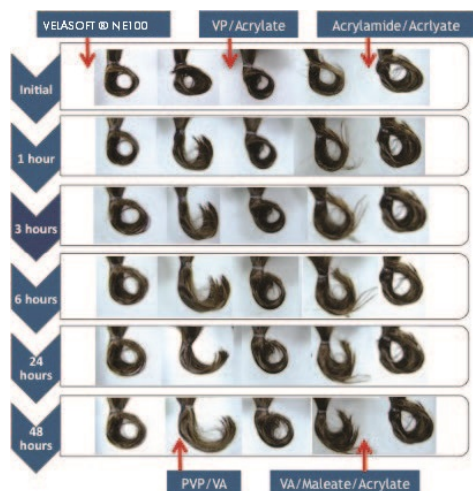
VELASOFT® NE 100 is a high performance hair styling ingredient that offers an outstanding, non-tacky hold even in high humidity environments. The product can also provide anti-frizz benefits, without building-up or weighing down hair. Hair styled with the product has outstanding sensory properties and retains a touchable soft, natural feel. The polymer is produced from natural plant based sources and is biodegradable.

Applications	Benefits	Physical & Chemical Properties	
<ul style="list-style-type: none"> • Non-aerosol pump sprays • Aerosol and non-aerosol mousse • Styling gels • Styling aids such as pomades, putties, lotions, and creams 	<ul style="list-style-type: none"> • Superior curl retention in high temperature and humidity • Highly effective frizz control agent • Outstanding sensory properties offering a non-crispy, natural feeling to styled hair • Excellent combing properties • Produces low tack formulations • Water soluble • 100% naturally derived 	INCI	sodium polyitaconate
		CAS#	26099-89-8
		pH at 10% solid	5.2
		Odor	none
		% Active	~83%
		Chemical nature	itaconate homopolymer
		Appearance	off-white powder

Along with the rise in consumer interest in sustainability, there is a growing awareness of synthetic chemicals in cosmetics, which has helped to propel the growth of products containing more natural ingredients. Yet consumers still expect the very best performance from the products they use and hair styling is no exception. Until now, the choices for 100% naturally derived styling polymers that deliver a good hold and a great feel has been limited. The solution is **VELASOFT® NE 100**.

Outstanding Curl Retention

VELASOFT® NE 100 is a naturally derived, biodegradable water soluble film forming polymer manufactured using a highly efficient green process with low impact on the environment. **VELASOFT® NE 100** has excellent style hold benefits compared with traditional synthetic styling polymers and offers the additional benefit of a soft, flexible feel that does not impact on the aesthetic properties. Curl retention studies have shown that **VELASOFT® NE 100** out performs PVP/VA and is as good as the best petrochemical based styling polymers.



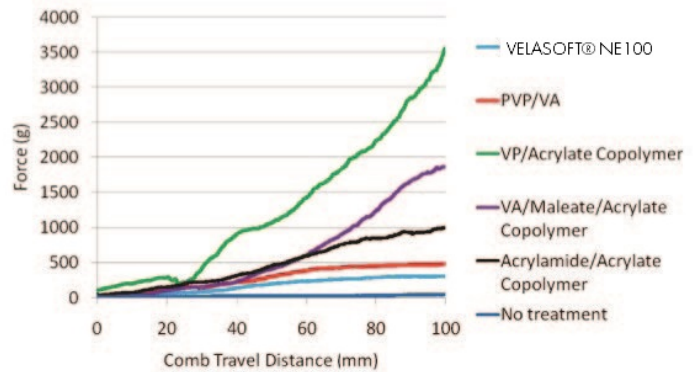
Traditional styling polymers often deliver good style hold at the expense of the aesthetic properties of the hair leaving it feeling stiff and brittle to the touch. The combined style hold and tactile properties of **VELASOFT® NE 100** also make the material an ideal anti-frizz agent.

In addition to the style hold and anti-frizz benefits offered **VELASOFT® NE 100** is also readily soluble in water making it compatible with a wide range of Hair Care products including sprays, mousses and gels.

Last but not least, **VELASOFT® NE 100** has a good safety profile; it is mild and non-irritating.

A Soft, Natural Feel

Traditional styling polymers often deliver good style hold at the expense of the aesthetic properties of the hair leaving it feeling stiff and brittle to the touch. The Personal Care Team at Itaconix have developed a simple technique to determine the softness or stiffness of the style hold using a texture analyser. Despite the outstanding performance in curl retention studies, the forces required to comb tresses treated with **VELASOFT® NE 100** are relatively low, demonstrating the excellent sensorial benefits and the soft styling hold achieved with **VELASOFT® NE 100**.



Superior Fizz Control

Hydrogen bonds are broken when hair becomes wet either during washing and styling or when hair absorbs water from the environment in high humidity conditions. For styled hair this can lead to a loss of style hold and for unstyled hair this can lead to frizzing, particularly for wavy hair. Tresses of hair prone to frizzing were pre-treated with a simple aqueous spritz containing **VELASOFT® NE 100** and compared with a number of off-the-shelf commercial products, marketed with frizz-reduction claims. All the tresses were subjected to an atmosphere of 85% relative humidity at 25°C for 24 hours, with **VELASOFT® NE 100** showing clear performance benefits.

