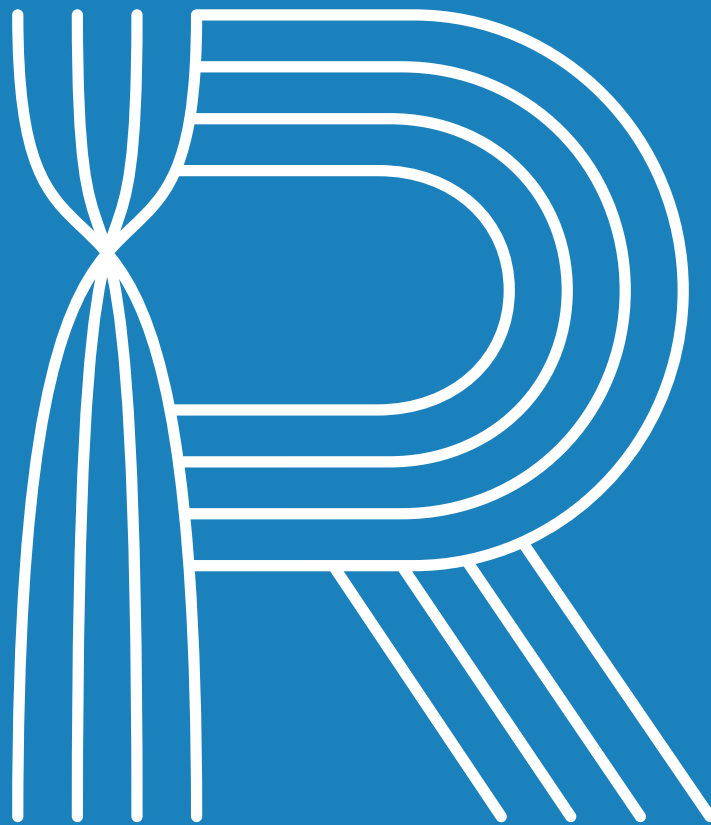


Enhancing hair strength
GENADVANCE[®] REPAIR



Challenge

WHY DAMAGED HAIR?

Damaged hair – more often than not – is the result of men’s and women’s pursuit of beauty. Hair, that is washed too often, over-styled, chemically treated, frequently colored, will finally give in. Hair surface damage, such as open and broken cuticles, will result in frizzy hair, loss of shine, and a compromised fibre protection, leading to easier damage of the internal part of the hair – the cortex.



MECHANICAL MANIPULATION

rubbing,
brushing



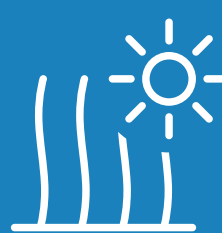
HEAT

dryers,
irons



CHEMICALS

shampoos, perms,
colorants, relaxers



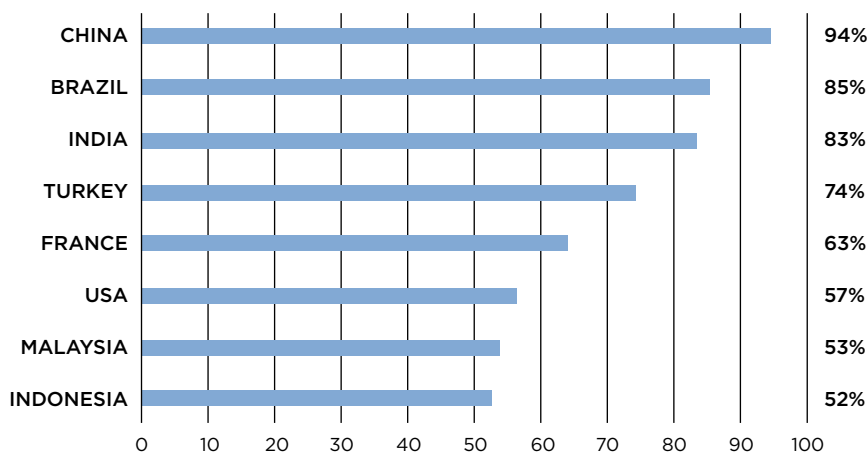
EVERYDAY ELEMENTS

UV, wind, salt,
pollution

Latest data show that majority of consumers experience damaged hair:



WOMEN EXPERIENCING SOME LEVEL OF HAIR DAMAGE



When looking at what women and men would like to change about their hair, repair of hair damage is one of the top unmet needs in most geographies globally, see ranking:



RANK MEN / WOMEN

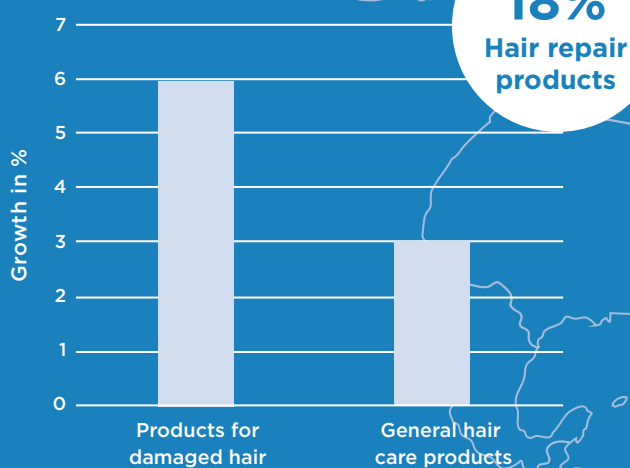
FRANCE	1 ST	1 ST
USA	2 ND	2 ND
BRAZIL	3 RD	1 ST
CHINA	2 ND	1 ST
INDIA	2 ND	1 ST

Opportunity

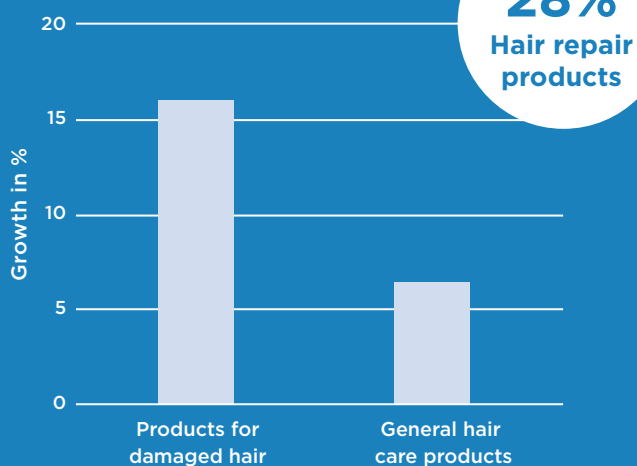
MARKET GROWTH

Market growth (2010–2016) of hair products for damaged hair is higher than general hair care products in all regions. The circles present the percentage of products in the hair care retail market, promoted with repair claims (in 2016).

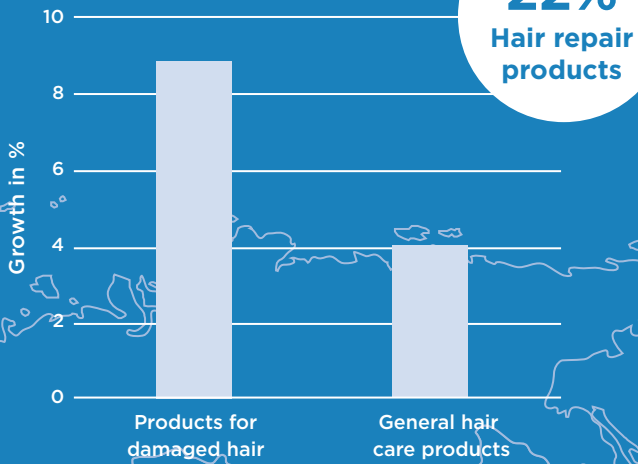
NORAM



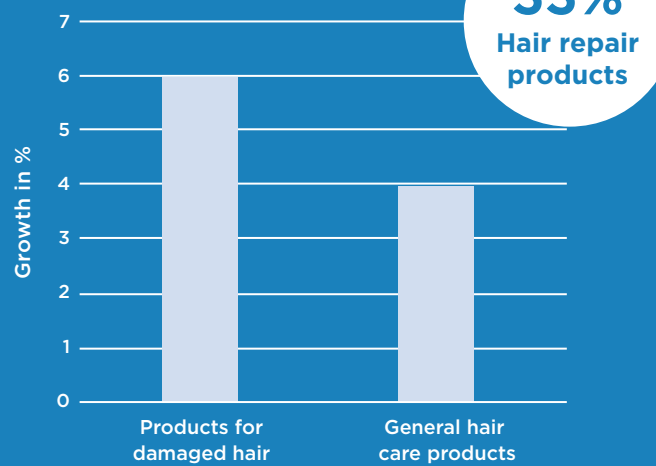
LATAM



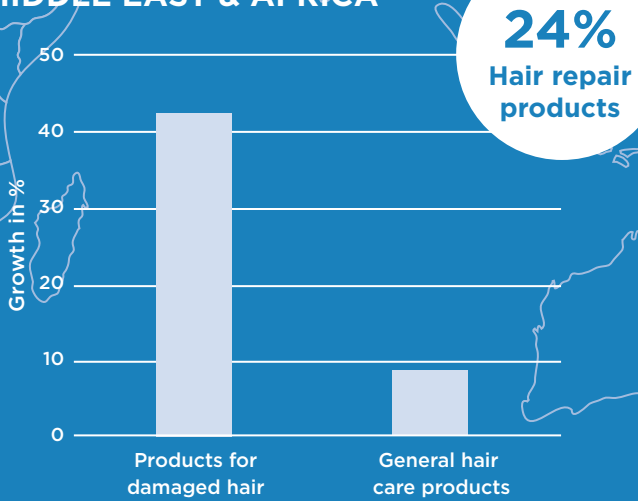
EUROPE



ASIA PACIFIC



MIDDLE EAST & AFRICA



Key benefits OF GENADVANCE® REPAIR

Genadvance® Repair does what its name promises, making very damaged hair sleek, smooth and healthy again. It also prevents further damage much better than current damage-protecting ingredients. Genadvance® Repair is probably the most weight efficient ingredient in its class, so very economic to use.



**BETTER DRY
SMOOTHNESS**



REPAIRS DAMAGED HAIR



**IMPROVES DRY
DETANGLING**

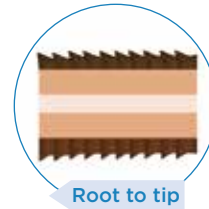


UP TO 25% COST SAVING

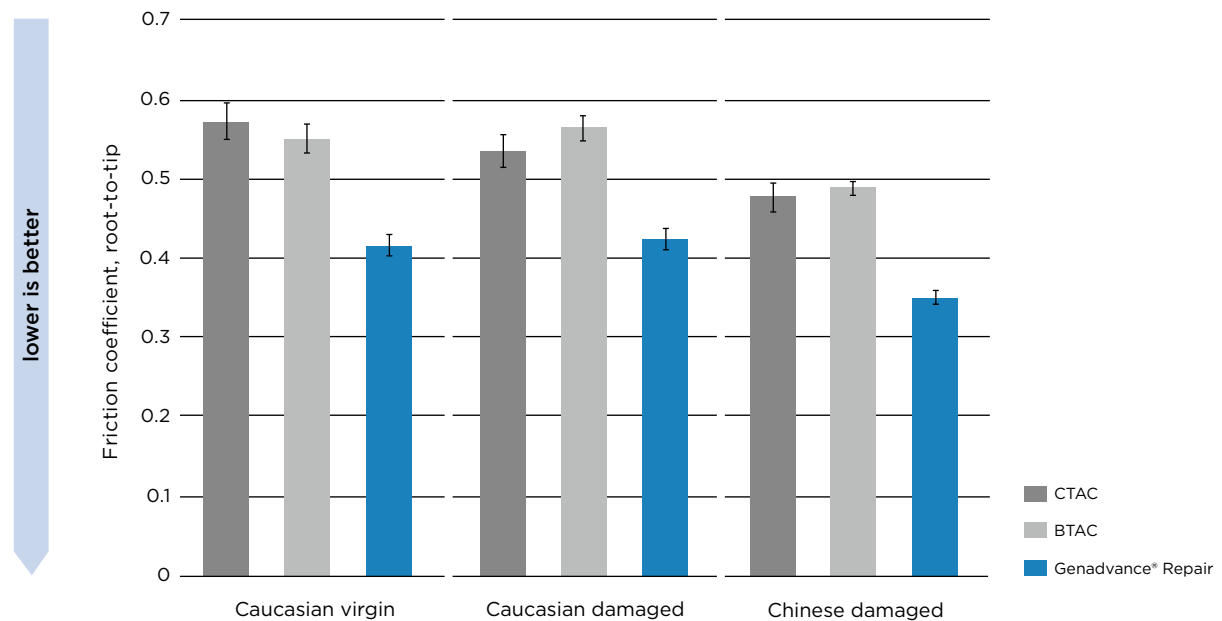
Benefit: HAIR SMOOTHNESS



Texture analysis evaluates hair smoothness on dry hair by measuring surface friction. Friction coefficient informs about friction between hair and the sensor, a lower coefficient means a smoother surface.



Surface friction measurement of hair treated with a rinse-off conditioner



The result is much better smoothness from root to tip with GENADVANCE® REPAIR.

Instrumental test: Surface friction measured on Caucasian virgin, Caucasian damaged, and Chinese damaged hair. Tested formulations: 4% Cetearyl Alcohol, 2% CTAC (Cetrimonium Chloride) or BTAC (Behentrimonium Chloride) GENADVANCE® REPAIR: 4% Cetearyl Alcohol, 2% GENADVANCE® REPAIR

Benefit: **SMOOTHNESS WITHOUT FRIZZ**



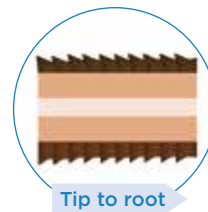
Evaluation: Visibly smoother and less frizz

<p>GENADVANCE® REPAIR</p>  <p>Hair is repaired, visibly smoother with reduced frizz</p> 	 <p>BTAC (Behentrimonium Chloride)</p>
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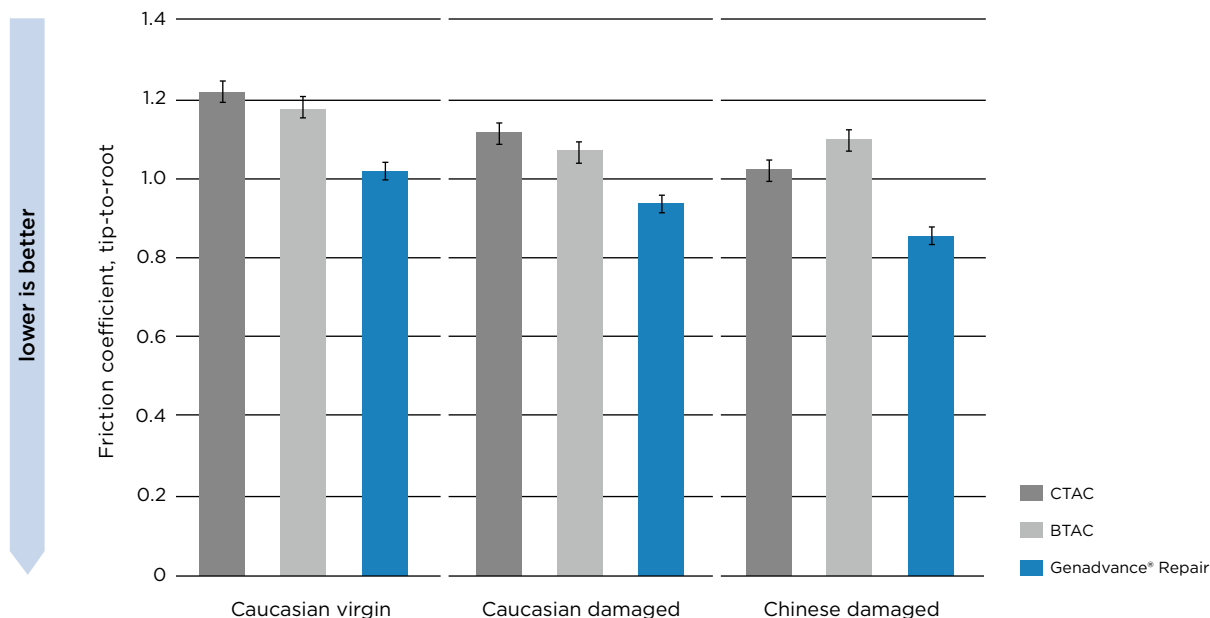
Benefit: HAIR REPAIR



Texture analysis evaluates hair condition on dry hair by measuring surface friction tip to root. This measurement informs about the lifted cuticles, and thus about the repair efficiency of a conditioner.



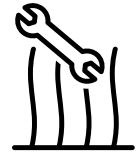
Surface friction measurement of hair treated with a rinse-off conditioner



The result is better surface repair from tip to root with **GENADVANCE® REPAIR**.

Instrumental test: Surface friction measured on Caucasian virgin, Caucasian damaged, and Chinese damaged hair. Tested formulations: 4% Cetearyl Alcohol, 2% CTAC (Cetrimonium Chloride) or BTAC (Behentrimonium Chloride) GENADVANCE® REPAIR: 4% Cetearyl Alcohol, 2% GENADVANCE® REPAIR

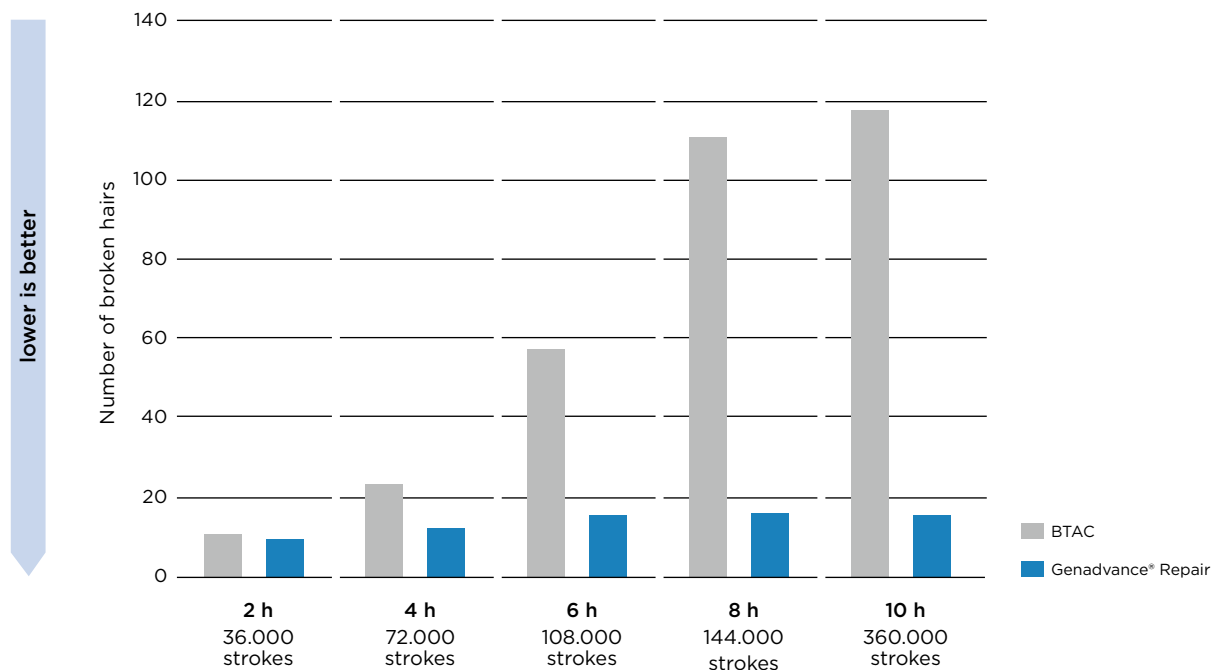
Benefit: HAIR REPAIR



As a result of combing hair may break – the lower number of broken hairs means a better damage protecting product.

Two hours of combing in the test correspond to approx. six months of consumer's hair lifecycle.

Hair life-cycle measurement of damaged hair treated with a rinse-off conditioner



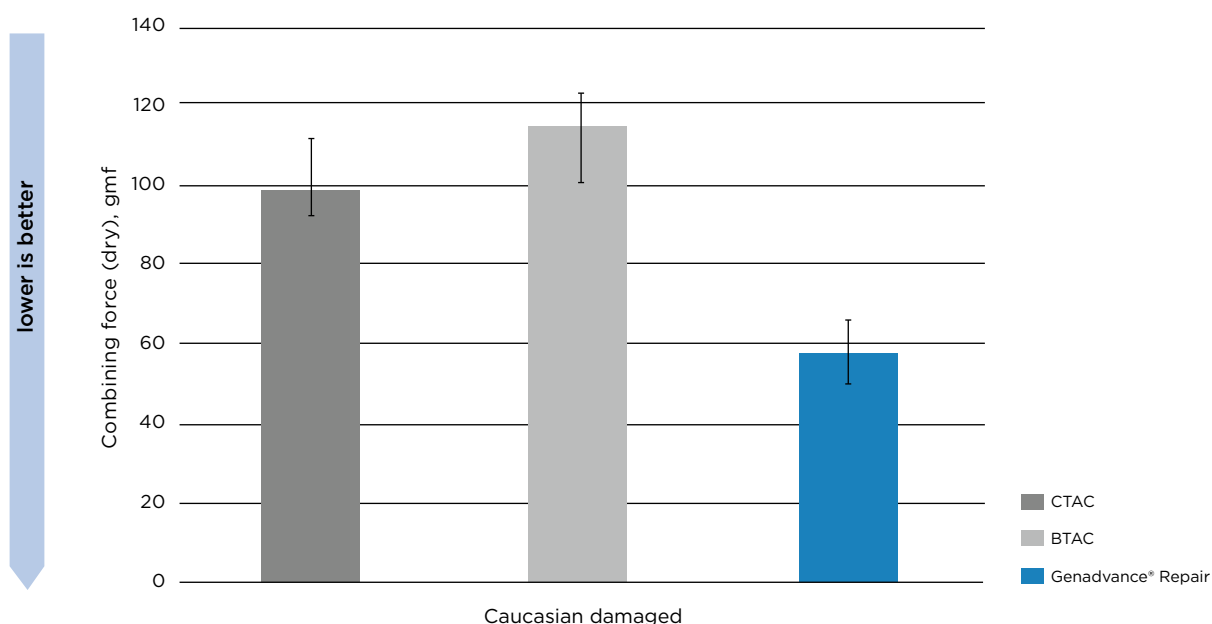
The result of the hair life-cycle experiment is that after treatment with a GENADVANCE® REPAIR conditioner, much fewer hair is broken in comparison to benchmark.

Benefit: **EASIER DETANGLING**



Hair damage and conditioning can be evaluated by measuring the detangling force on hair. A lower force means hair fibres are separated easily.

Dry detangling measurement of Caucasian damaged hair treated with a rinse-off conditioner



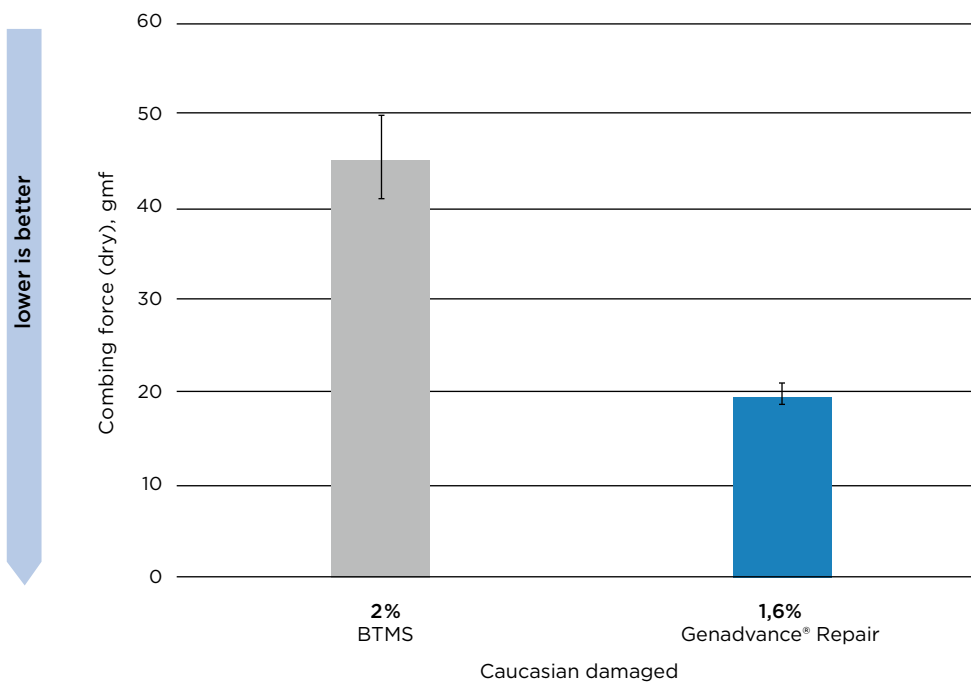
The result is much easier dry detangling on Caucasian damaged hair with GENADVANCE® REPAIR.

Benefit: **COST REDUCTION**



GENADVANCE® REPAIR when used in a mimic of a branded formulation, exceeds the performance of the original, even with 20% less actives (compared to 2% Behentrimonium Methosulfate).

Dry detangling measurement of Caucasian damaged hair treated with a rinse-off conditioner



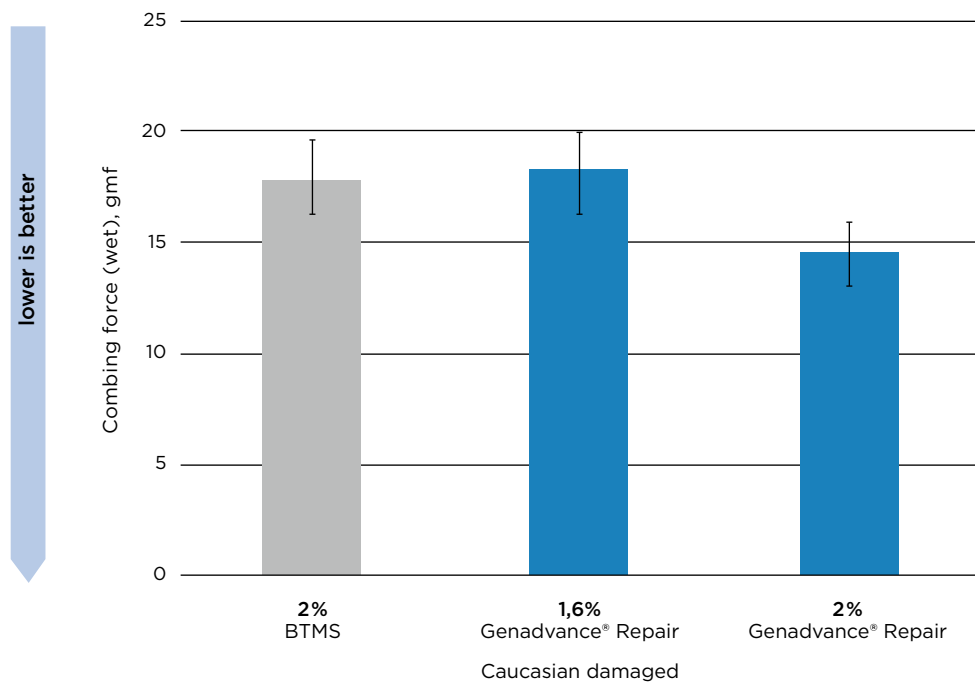
BTMS (Behentrimonium Methosulfate) is a conditioning quat functionally identical to BTAC (Behentrimonium Chloride). Both are frequently used in hair repair conditioners.

Benefit: **COST REDUCTION**



In wet detangling GENADVANCE® REPAIR is superior at the same level (2%) vs. BTMS (Behentrimonium Methosulfate), whereas at reduced level (1.6%) it provides the same effect as 2% of BTMS (Behentrimonium Methosulfate) in a branded conditioner.

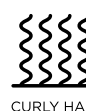
Wet detangling measurement of Caucasian damaged hair treated with a rinse-off conditioner



Formulation guide

GENADVANCE® REPAIR

FORMATS	GENADVANCE® REPAIR	BENEFITS	GENADVANCE® REPAIR
Shampoo	•	Moisturizer	
Conditioner	•	Volume	
Hair Mask	•	Repair	•
Hair Styling	•	Silicone-free	•
Hair Oil		Hair gloss	
Solid Bar		All-natural	
Transparent	•		



GENADVANCE®
REPAIR

Dossier: **GENADVANCE[®] REPAIR**

INCI

Quaternium-98

CHEMISTRY

Multi-chain ethoxylated quaternary ammonium salt (DMS)

MOLECULAR WEIGHT

~2000 g/mol

APPEARANCE

Yellow to amber liquid, 100% active - storage at room temperature

FORMULATION

Easy to formulate, high weight efficiency, cold process possible, 1-to-1 quat replacement

CONCENTRATION IN USE

From 0.5 to 3%

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