

More Than Hairspray

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AkzoNobel Surface Chemistry Personal Care

阿克苏诺贝尔表面化学个人护理品部

气雾类型的发用产品创新—新应用及新概念为消费者带来全方位护发定型体验

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MORE THAN HAIRSPRAY



colour protection
thermal protection
natural
dry shampoo

Key Trends 趋势

Styling Formulations 定型产品配方

- Colour protection 护色
- Thermal protection 热保护
- Natural approach 天然产品
- Dry shampoo plus 干粉香波

Featured AkzoNobel Products

阿克苏诺贝尔适用的产品

- CELQUAT® LS 50 polymer
- AMPHOMER® polymer
- DynamX® and DynamX® H₂O polymers
- DRY-FLO® TS starch
- AMAZE™ polymer
- BIOSTYLE™ CGP polymer

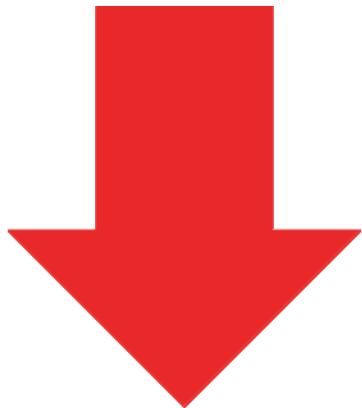


Key Trends 趋势



The Positive 正面趋势

- Aerosol market is growing at 9% per year led by growth in multinationals.
- Premium end brands are replacing visits to the salon
- Consumers are looking for novel ingredients
- Innovation is driving the desire for new formulations

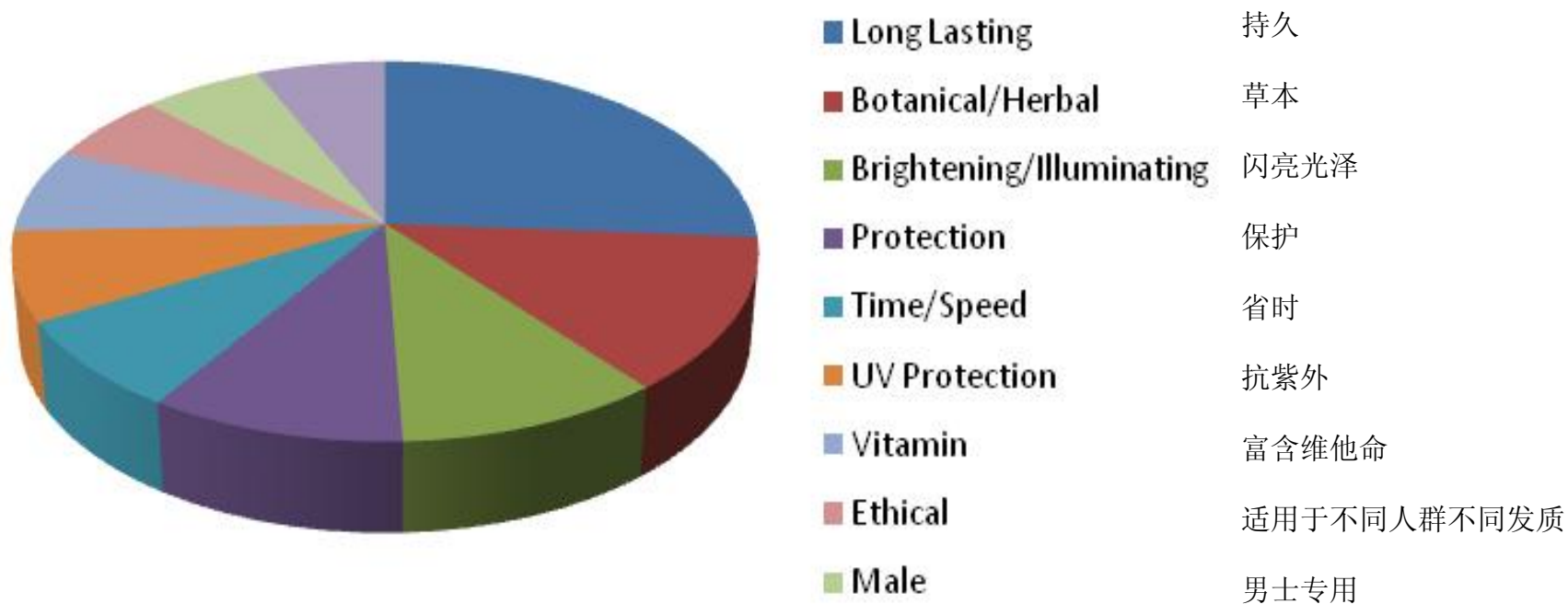


The Negative 负面趋势

- Salon visits are down
- Consumers are trying to extend time between salon visits
- Consumers desire professional experience at home

Key Claims 宣称

Key Claims



Source: Mintel GNPD

Key Claims 宣称

Added Benefits 附加功效

- Products that go beyond simply maintaining or creating a particular hair style:
 - Moisturizing, adding shine, protecting from UV damage, protecting hair from heat damage etc.

Convenience 便捷

- Convenience claims were driven by long-lasting attributes
- Ease of use, time/speed and on-the-go claims were more limited in comparison

Natural and Ethical 天然及适用不同人群不同发质

- Natural formulations were limited as consumers focus more on value for money
- Eco-friendly, sustainable lines are niche and most active in North America and Europe

What is Important? 重要的影响因素

Convenience/
easy and quick
to apply

便捷

Long-
lasting

持久

Shocking fact!

**Women suffer 156
bad hair days a year**

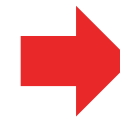
超出半年的时间，女性头
发需加强打理

**Added
benefits**

附加的功效

**It's all
about
added
benefits!**

重要的附
加功能



- Conditioning and moisturising 调理保湿
- Adding shine 提亮
- Protection from color fading, and thermal and UV damage 受损保护

**Added
benefits**

MORE THAN HAIRSPRAY



Colour Protection 护色
•CELQUAT® LS-50 Polymer

Colour Protection: Market Information

护色：市场信息

The market is saying, “You paid a lot of money for that colour—why watch it fade?”

Facts 数据

- Global market saw in an increase in product launches in this sector by 14% in 2011
- One of the Top 3 most active areas in hair care
- Claims are ease of use and long lasting
- Now targeting men as well as women
- 62% of consumers are visiting salon less
- Growth in branded and private label products
- Color protection styling products can replace a leave-in conditioner, offering multiple benefits



Cationic Cellulose 阳离子纤维素

CELQUAT® LS-50 polymer

INCI: Polyquaternium-4/Hydroxypropyl Starch Copolymer

PQ-4/羟丙基淀粉共聚物

Features and Benefits 特性

- Substantive to hair and skin
- Improves combability of hair
- Volumising benefits
- Curl definition benefits
- Imparts a smooth feel to hair and skin
- Surfactant compatibility
- Color protection

Use in 应用

- Creams and lotions
- Mousses
- Gels
- Leave in and rinse off conditioners
- Personal cleansing systems
- Detangling spritzes

Recommended use level: 1 – 4%

推荐用量: 1 – 4%

CELQUAT™
CONDITIONING POLYMERS



A Performance Difference 突出的性能

- **CELQUAT LS-50 is an interpenetrating network of modified high amylose starch and cationic modified cellulose**

CELQUAT LS-50 为改性直连淀粉和阳离子纤维素共聚物

- **The high amylose starch gives the water resistant, film forming property, which locks in the color**

高直连淀粉提供憎水性和成膜性，由此提供固色效应

- **The cationic cellulose forms a strong bond with the anionic hair locking the polymers in place**

阳离子纤维素和电负性的头发相互作用，从而提供高分子的附着性

- **In addition, the cationic polymer provides conditioning properties**

阳离子高分子还能提供调理性

- **The starch works as a film former, providing a protective barrier on hair cuticle**

淀粉基团提供成膜性，为头发鳞片层提供保护屏障

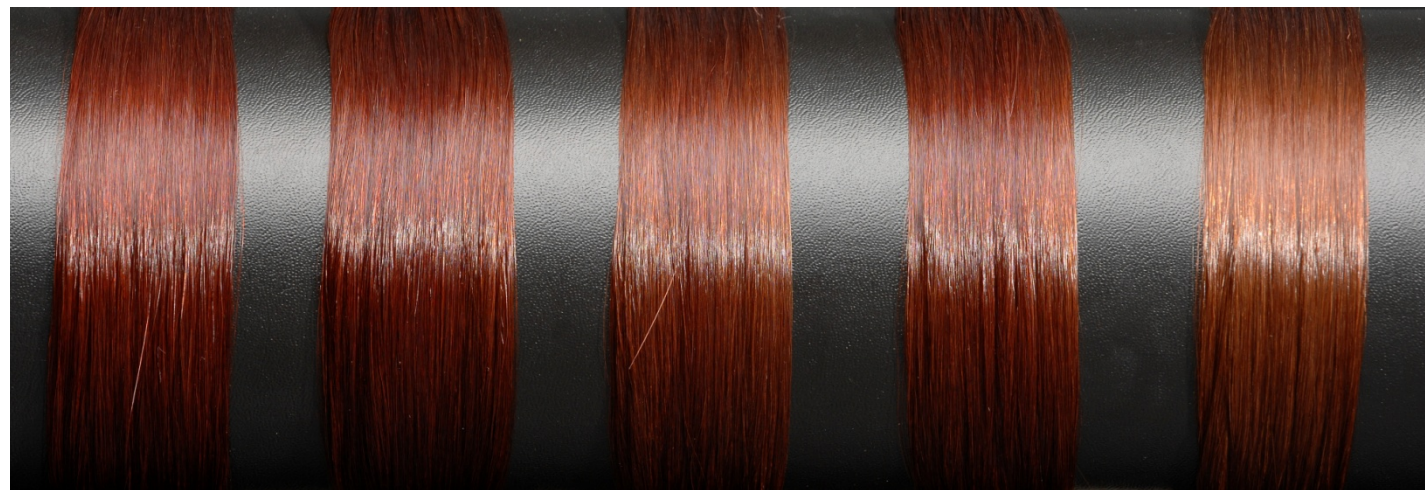


A Visible Difference

显著的视觉差异

CELQUAT® LS-50 has been shown to provide 75% more color retention over control swatch after 10 wash cycles

CELQUAT® LS-50 在10次重复清洗后，相对于不使用任何阳离子调理剂，能提高75%的颜色保护作用。



Control
(0 washes)
未洗参照样

CELQUAT®
LS-50

PQ-6

PQ-11

Control
(10 washes)
10次清洗后的
参照样



Hair Color Protection Formulations

护色参考配方

Color Protection Mousse (14274-29) 护色摩丝

- CELQUAT LS-50 polymer provides hold with conditioning, manageability, volume, and dye protection DynamX
- AMPHOMER polymer for added stiffness and humidity resistance

Hard Hold Multifunctional Protection Mousse (14742-3.2)

强定型多功能护色摩丝

- CELQUAT LS-50 polymer provides hold with conditioning, manageability, volume, and dye protection
- Amphomer adds hard hold and on-hair stiffness

Colour Fast Styling String (14742-4.2) 固色定型喷雾

- CELQUAT LS-50 polymer conditions, enhances wet hair properties and locks in colour



**Added
benefits**

MORE THAN HAIRSPRAY



Thermal protection

热保护

- DynamX[®] Polymer
- AMPHOMER[®] Polymer

Thermal Protection: Market Information

热保护：市场信息

Facts 数据

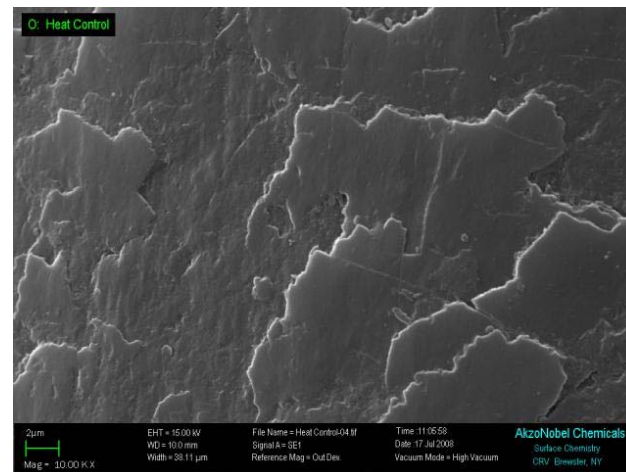
- The trend is still growing for use of heated appliances such as flat irons and curling irons
- Consumers are often using flat irons to refresh or restyle the hair during the day
- Appliances can reach over 200° C
- Chemically colored hair is more prone to further damage when heated appliances are used
- Against professional advice, consumers often use heated appliances on hair that is not 100% dry
- 25% of styling product launches in 2011 had a thermal protection claim on them (13% in previous years)



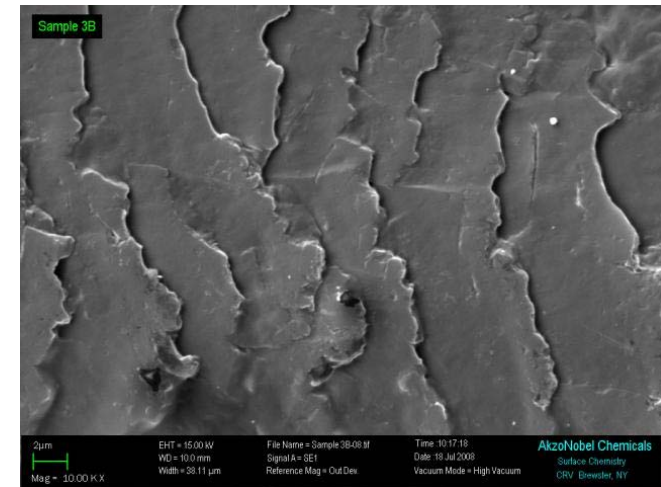
What the experts are saying, "Put me on before your hair gets fried!"

Keep Hair Looking Healthy Despite the Heat 热损伤保护

DynamX® polymer has been shown to provide increased thermal protection when compared to un-treated hair 热保护



Control After Heating



DynamX® Polymer After Heating

- The DynamX image shows superior performance versus the heated control swatch
- The DynamX image shows a nice smooth cuticle with no visible blisters
- The control image shows the cuticle is almost completely burnt off.
- Hair fibres are more hydrophilic when damaged



Hold and More with AMPHOMER Polymers

AMPHOMER 提供强定型和高卷曲保持性

AMPHOMER®, AMPHOMER® LV-71 and AMPHOMER® 28-496

INCI: Octylacrylamide/Acrylates/Butylaminoethyl
Methlacrylate Copolymer

辛基丙烯酰胺/丙烯酸(酯)类/甲基丙烯酸丁氨基乙酯共聚物

Features and Benefits 特性

- Amphoteric
- Soluble in alcohol and aqueous alkali
- Excellent stiffness and curl retention best suited for systems that require top-level performance
- Compatible with mid-range levels of hydrocarbon propellant, DME propellant and water
- Excellent wash-off properties allow it to be used at high solids levels for greater stiffness and hold
- Provides thermal protection on the hair

Use In 应用

- Aerosol sprays
- Non-aerosol pump sprays
- Anhydrous systems
- Alcohol free products
- Mousses
- Creams
- Pomades
- Gels
- Waxes and Glues

Recommended use level: 1 – 4%

推荐用量: 1 – 4%

AMPHOMER™
STYLING POLYMERS

Surface Chemistry | Personal Care/ Aerosol Suggestions



Polyurethane/Acrylates Polymers

聚氨酯和丙烯酸（酯）类共聚物

DynamX[®] and DynamX[®] H₂O polymers

INCI: Polyurethane-14 (and) AMP-Acrylates Copolymer

聚氨酯-14和丙烯酸（酯）类共聚物AMP盐

Features and Benefits 特性

- Urethane provides strength, memory, flexibility and sprayability
- Acrylate provides strength, humidity resistance and shampoo removability
- Anionic polymers, pre-neutralized with AMP
- Supplied in ethanol or water for maximum formulation versatility
- Patented technology
- For both high and low VOC hairsprays, gels, mousses and styling aids

Multiple Claims 多功能

- Frizz Control
- Curl retention
- Long lasting hold
- Durable hold
- Exceptional humidity resistance

DynamX[®]

DynamX[®] H₂O

Recommended use level: 1–6% active

推荐用量：1 – 6% 活性物含量



Thermal Protection Formulations

热保护参考配方

Thermal Protection Flat Iron Spray (14742-11.1)

热保护电熨棒喷雾

- DynamX polymer for flexible hold, shine and thermal protection

Medium Hold Thermal Protection Flat

Iron Spray (14742-12.1) 中度定型热保护电熨棒喷雾

- Amphomer is highly effective as a thermal protection polymer in addition to providing characteristic crisp hold and humidity resistances

Flexible Film Curl Defining Mousse (14742-2.2)

弹力卷曲定型摩丝

- DynamX polymer for curl definition, frizz protection, and natural, touchable hold



**Added
benefits**

MORE THAN HAIRSPRAY

Natural 天然

- AMAZE™
- BIOSTYLE™ CGP
- STRUCTURE® STYLE

Natural Products: Market Information

天然：市场信息

Facts 数据

- Natural and organic products now a \$10 Billion market annual growth rate >20% expected through 2013
- Hair care and coloring products featuring a natural claim comprised \$1.5 Billion (of \$10.2 BB total)
- Lowering the environmental impact of their cosmetic products by developing greener formulations
- Understanding the use of water, impact on land and biodiversity, greenhouse gas emissions, waste, and energy consumption that goes into your products is key to a greener future

Industry analysts, personal care companies and suppliers all agree that green has proven its staying power.



Sustainable Technologies

可持续发展的技术

AkzoNobel

Natural
天然

- **AMAZE™ and AMAZE™ XT Polymers**

Hybrid
部分天然

- **BIOSTYLE™ CGP**
- **STRUCTURE® STYLE**



Natural Polymers 天然高分子

AkzoNobel

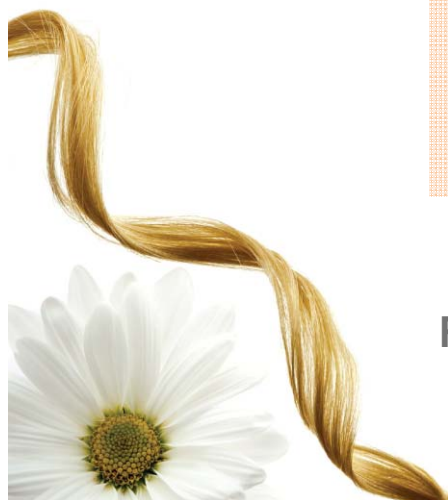
AMAZE™ Polymer

INCI: Corn Starch Modified 改性玉米淀粉

Features and Benefits 特性	Use in 应用
<ul style="list-style-type: none">• Unique, natural-based, nonionic polymer• Cold water dispersible• Touchable hold• Non-tacky• Excellent humidity resistance• Excellent volumizing properties• Restylable• Cost effective	<ul style="list-style-type: none">• Creams and lotions• Mousses• Gels• Leave in and rinse off conditioners

Recommended use level: 1-4%

Amaze™



Hybrid Polymers

部分天然部分合成的杂化聚合物

AkzoNobel

BIOSTYLE™ Polymer

INCI: Maltodextrin/VP Copolymer 环糊精/VP共聚物

Features and Benefits 特性

- Excellent performance in gels, mousses and styling aids
- Low viscosity liquid, easy to use
- Excellent product and gel clarity
- Nonionic polymer technology is compatible with commonly used formulation ingredients
- Requires no neutralization
- No perceivable differences in gel texture or rheology
- Globally acceptable preservative system

Use In 应用

- Pump hairsprays
- Creams & lotions
- Mousses
- Gels
- Leave in and rinse off conditioners

Improved sustainability profile versus PVP and other synthetic fixative polymers

Bicstyle™
POLYMERS FOR PERSONAL CARE



Hybrid Polymers

部分天然部分合成的杂化聚合物

STRUCTURE® STYLE Polymer

INCI: Hydroxypropyl Starch Phosphate 羟丙基淀粉磷酸酯

Features and Benefits 特性

- Based on 'waxy' potato starch containing more than 99% amylose
- Derived from a non-GM amylopectin potato starch
- Cold-water dispersible, easy to use
- Improved clarity compared to Maize based products
- Compatible with commonly used formulation ingredients
- Improved formulation economics
- Improved sustainability profile versus traditional styling polymers

Use In 应用

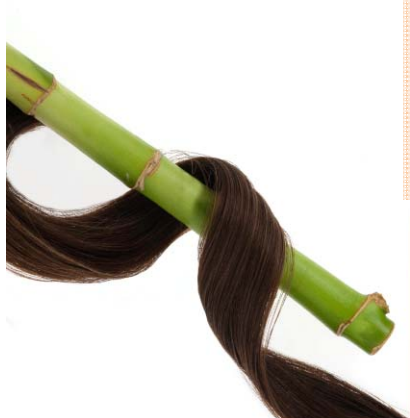
- Mousses
- Gels
- Styling creams
- Pomades
- Cleansing products
- Creams and lotions

Enhanced sustainability profile with excellent economics and maximum versatility

Recommended use level 0.15-1.0%
推荐用量 0.15-1.0%

STRUCTURE™
RHEOLOGY MODIFIERS

Surface Chemistry | Personal Care/ Aerosol Suggestions



Natural Formulations

天然配方

AkzoNobel

Natural Hold Mousse (14742-9.1) 天然定型摩丝

- Firm Holding 6% VOC aerosol styling mousse
- STRUCTURE® STYLE polymer provides hold in a more sustainable way
- CELQUAT® L-200 enhances wet and dry combing properties

Natural Volumizing Mousse (14742-5.1) 天然蓬松摩丝

- BIOSTYLE™ CGP polymer provides hold and control
- CELQUAT® H-100 polymer gives conditioning, improved wet comb, and great dry feel
- STRUCTURE® STYLE adds hold, volume and enhances foam properties

Aerosol Fixing Paste (14742-10.1) 气雾定型胶

- Amaze™ polymer is a natural choice for adding texture
- DynamX® gives flexible, durable hold

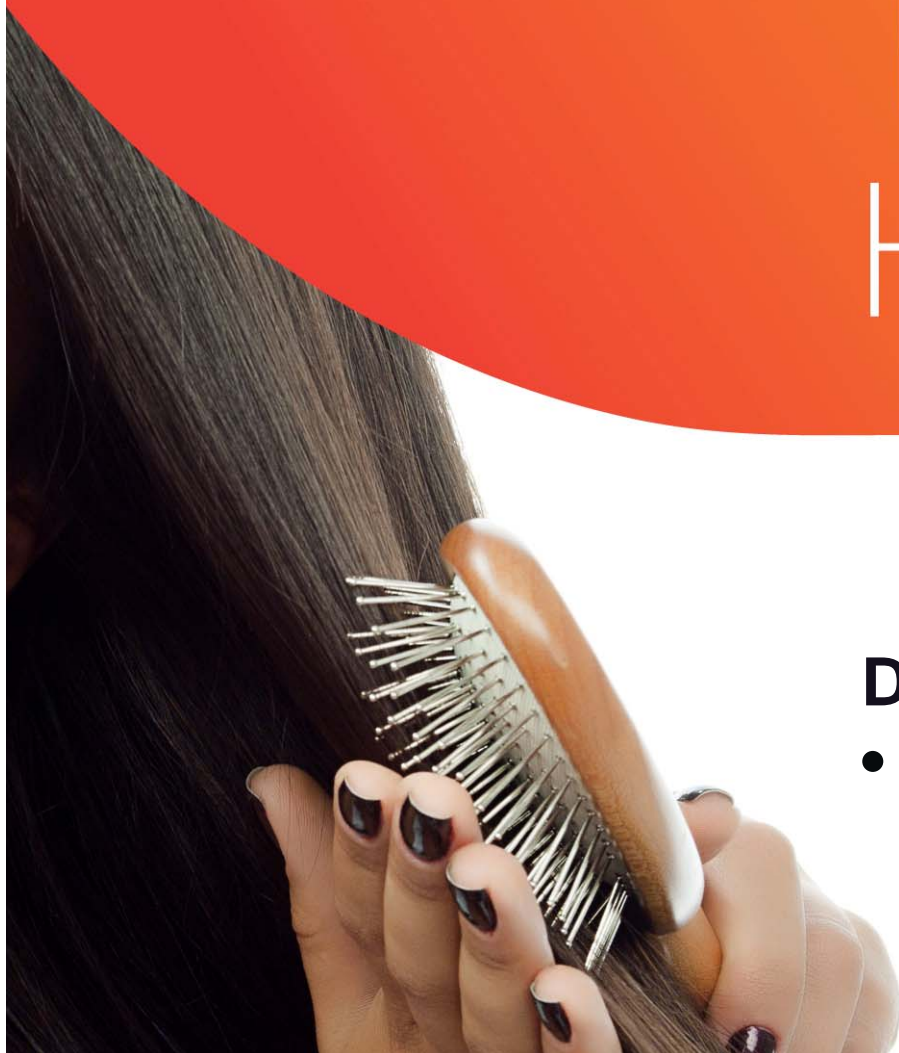


**Added
benefits**

MORE THAN HAIRSPRAY

Dry shampoo 干粉香波

- DRY-FLO® Specialty
Starches



Dry Shampoo: Market Information

干粉香波：市场信息

Facts 数据

- Dry shampoos have been around in one form or another for ages, since the days of powdered wigs
- Dry shampoos can prolong a blow out, reduce styling time, hair damage and decrease water usage
- Dry shampoo cleans, refreshes and revives your hair in seconds without the need for any other tools
- The products are also great for "toning down" your hair if you accidentally overdid the hairspray or gel
- They can be used strictly for cleansing properties, to "brush it out after applying. Think of it as rinsing the hair as you would after shampooing in the shower
- Essential stylists' tool for adding volume and texture
- Dry shampoos offer indirect benefits that can prevent damage



DRY-FLO® Specialty Starches

特色淀粉

DRY-FLO® PC and DRY-FLO® TS

INCI: Aluminum Starch Octenylsuccinate 淀粉辛烯基琥珀酸铝
Tapioca Starch and Polymethylsilsesquioxane 木薯淀粉（和）
聚甲基硅倍半氧烷

Features and Benefits 特性

- Hydrophobically modified tapioca starch
- Cross linked
- Silky powdery afterfeel
- Oil absorption
- Sensory modification

Use in 应用

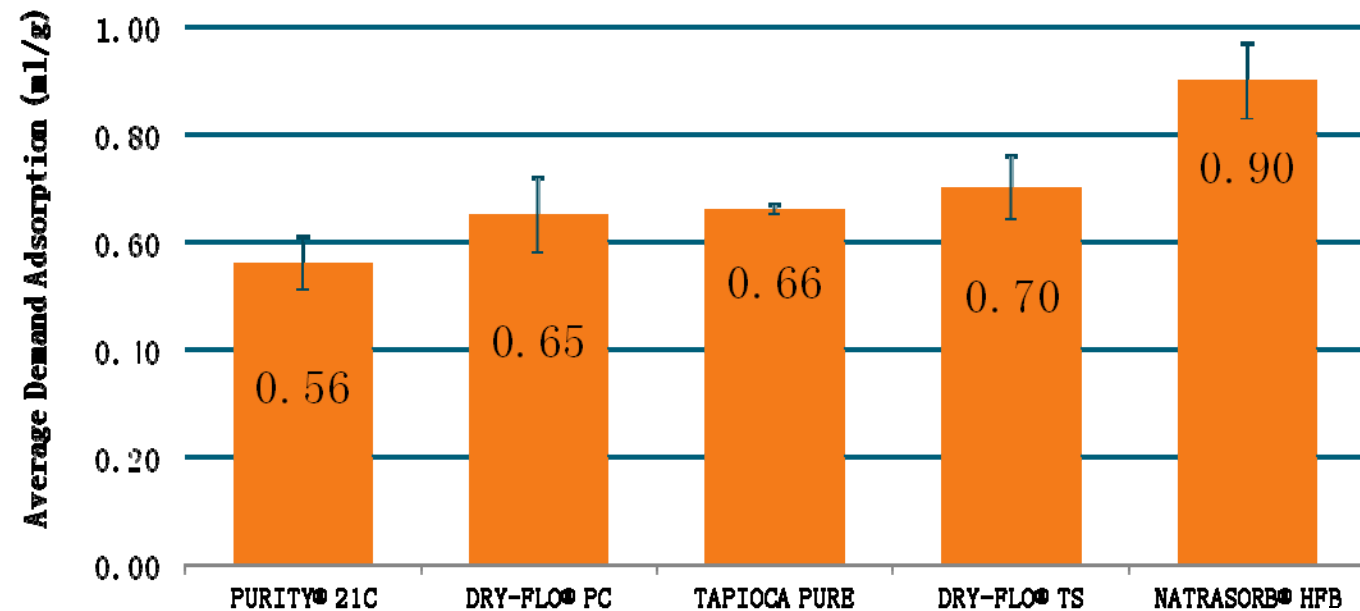
- Creams and lotions
- Mousses
- Gels
- Leave in and rinse off conditioners
- Personal cleansing systems
- Detangling spritzes

Recommended use level: 1-4%
推荐用量: 1-4%

Dry-Flo®
SPECIALTY STARCHES



Oil Adsorbency Data 吸油性数据



**DRY-FLO® TS and DRY-FLO® starches
provide good oil adsorption in a wide range
of personal care product applications**
在各种个人护理产品中提供高吸油性

Dry Shampoo Formulations

干粉香波参考配方

Dry Shampoo (14742-8.1) 干粉香波

- DRY-FLO® TS starch for oil absorption and hair cleansing
- Tapioca Pure Starch

Invisible Dry Shampoo (14742-7-1) 轻质干粉香波

- This is a very light weightless dry shampoo
- DRY-FLO® TS starch is used for oil absorption

Flexible Control Dry Shampoo (14742-6.1) 弹力定型干粉香波

- This is a styling powder formulation used to volumize and add texture to hair
- DRY-FLO® PURE starch as an oil absorber
- DynamX® polymer provides additional styling and volumizing properties



MORE THAN HAIRSPRAY



colour protection
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