Blanova DS Series

Zeolites for a Warming Sensation

azelis PERSONAL CARE

Creating value, growing together

Value Proposition

We provide comprehensive service through the delivery of specialty chemical solutions for the formulation of Personal Care and Home Care & Industrial Cleaning products. Our super-regional footprint accompanied by our technical competence and our optimized marketing engine exemplify our value-added standards to both our supplier partners and customers.

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Blanova DS 901

Zeolites for a warming sensation

Unique structure driving performance

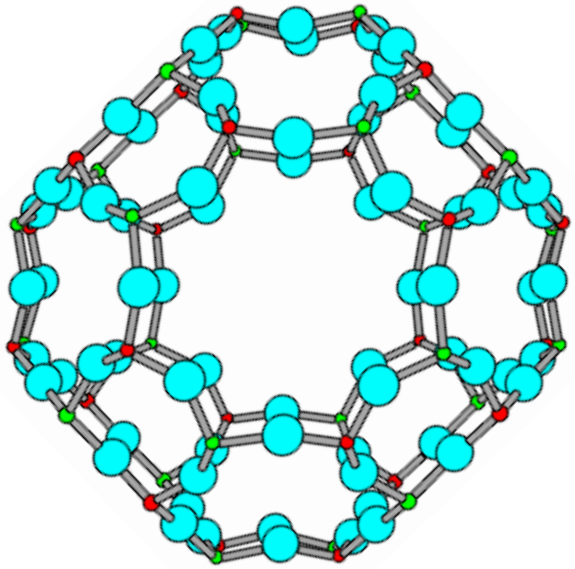
- Three dimensional crystalline structure
- Porous, high surface area

Warming Sensation

- High quality active microporous powder
- Creates heat when exposed to water, providing a warming sensation

Features and Properties of Zeolites

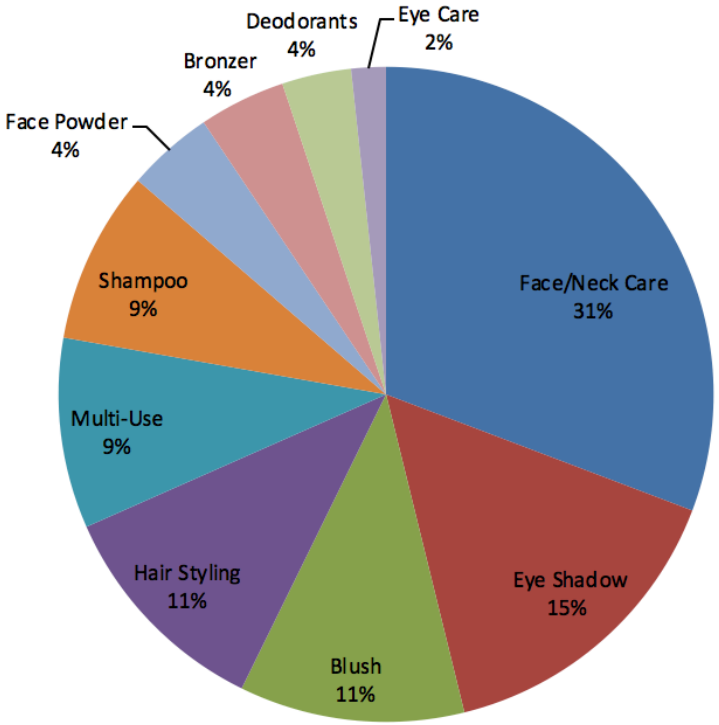
- Zeolites are three dimensional crystalline, high surface area, porous networks of silicon and aluminum atoms connected by oxygen atoms.
- The negative charge introduced by aluminum (substituting silicon) is balanced by cations or protons in the structure.
- Presence of cations typically lower the effective pore size.
- Zeolite pore sizes are uniform and approach the dimensions for various molecules (i.e. 3-8 Å).



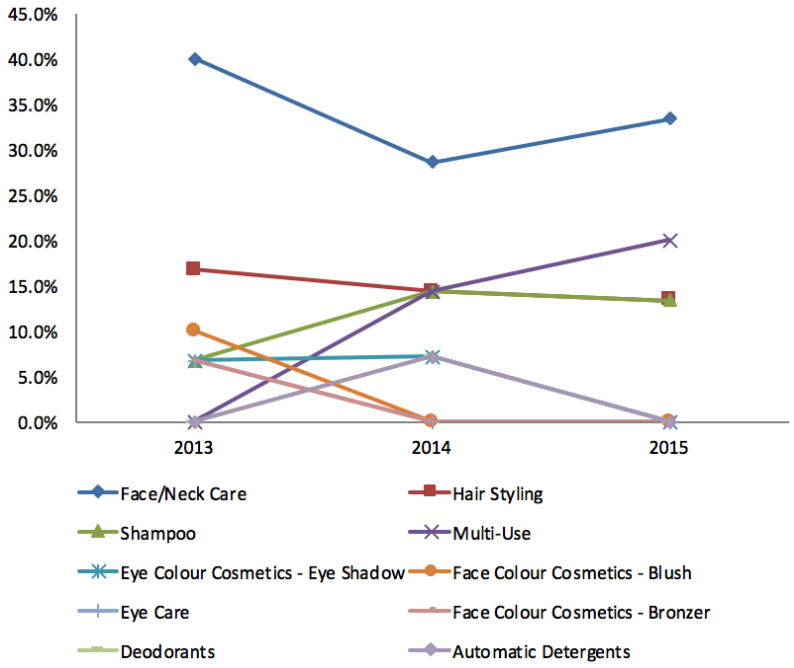
US Product Applications Incorporating Zeolites

North America Product Launches

382 products found



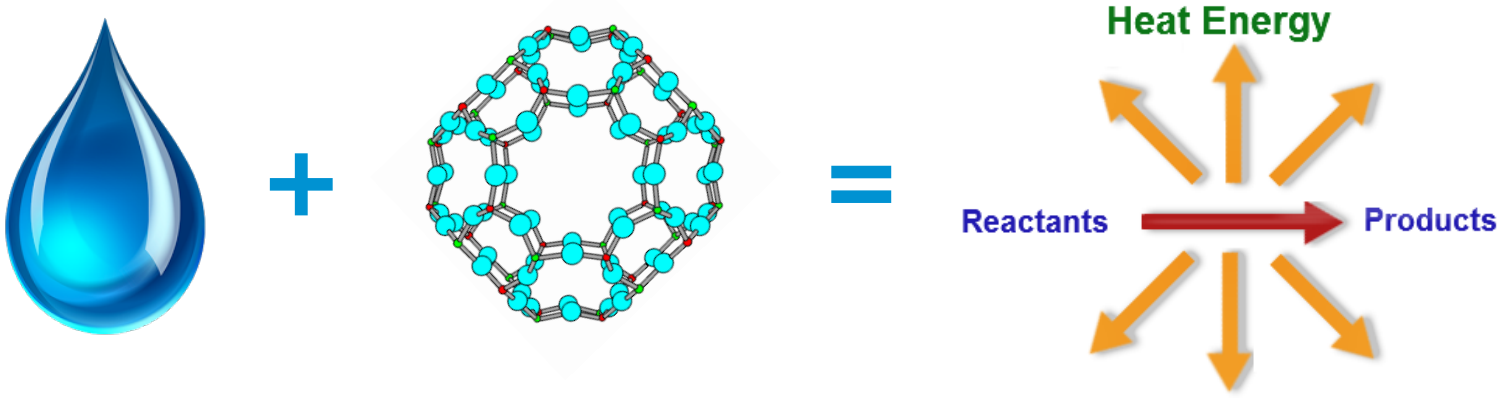
Color cosmetics and skin care product launches dominate



Multi-use product launches incorporating Zeolites have grown consistently over the last 3 years

Source: Mintel GNPD 2016

Warming Sensation Mechanism of Zeolites



Water + Zeolite = Heat

- The exothermic reaction (warming sensation) is directly linked to the moisture content of the skin
- Depending on the amount of moisture on an individual's skin, there may be a slight warming effect noticed upon initial contact of the product with the skin
- It is generally best to slightly dampen the skin prior to applying the zeolite product. As more water is added the heating effect will dissipate more rapidly as it acts as a heat sink

Blanova DS 901 Features and Advantages

High Quality Active Microporous Powder

- High Al content, Na, K counter ion
- Hydrophilic, dehydrated Type-A Zeolites
- Effective at creating heat when exposed to water, pleasant warming sensation during use
- Only for anhydrous formulations
  - Better to formulate under vacuum
- Hygroscopic: store in an air tight container in a dry environment
  - Re-Activation is possible: vacuum drying @ 110°C for 12 hours or 150°C for 4 hours
- Use level: 10 – 30%

Warming Effect Applications

- Face masks
- Body treatments
- Anti-Blackhead Cleanser
- Lip care products

Color Cosmetics are not only the #1 application for Zeolites currently, but also the category with more growth within the US Personal Care market (19% total growth forecast from 2015-2020)

Trend Concept: Seasonal Fashion Color Trends

Warming Illuminating Powder

"Inspired by the atmosphere of long winter nights. Dermatologically-tested powder features champagne and bronze shades and can be custom-blended to instantly create a subtle winter glow."

talc, zea mays starch (corn starch), zinc stearate, pentaerythrityl tetraisostearate, dimethicone, octyldodecyl stearoyl stearate, tin oxide, calcium sodium borosilicate, **zeolite**, tetrasodium EDTA, isostearyl alcohol, panthenol, acrylates/octylacrylamide copolymer, BHT, tocopheryl acetate, sorbic acid, methylparaben, propylparaben, butylparaben, +/- may contain (carmine (CI 75470), iron oxides (CI 77491, CI 77492, CI 77499), titanium dioxide (CI 77891), mica), F.I.L.B38144/1P…

Masks offer an impressive 32% total growth forecast

Trend Concept: Indulgence, Personalization

Self Heating One Minute Mask

"Unique formula heats on contact with water to open pores and draw out pore-clogging dirt and oil, then cools leaving skin tightly smooth and refreshed"

Butylene Glycol, **Zeolites**, Kaolin, PEG-8, Methyl Gluceth-20, Cellulose, Talc, fragrance, Lauryl Methacrylate/Glycol Dimethacrylate Crosspolymer, Charcoal Powder, Dimethicone, Hydroxypropylcellulose, Menthol, Disodium EDTA, BHT

Source: ©Euromonitor International 2016, Mintel GNPD

Formulation Guidelines

Blanova DS 901

- The formulation has to be completely anhydrous
- Glycols, lower molecular weight polyethylene glycols and lipids are common bases
    - Lipids can reduce the heating effect as they delay the contact of water with the zeolite
- They are best added to the formulation at the end of the process and it is advisable to add a vacuum step to ensure that all air has been removed from the system
- Typical use levels are 20 to 30%
- The preferred pH range for use is from about 4 to 8
- Blanova zeolite grades are heat stable

Mission Statement

"To Build Unwavering Customer Loyalty"

We accomplish through:

Developing long-term customer and supplier relationships by providing innovative solutions to meet the formulating and production needs of our customers.

Employing a leading team of technical sales people, supported by an exceptional service organization.

Demonstrating the highest level of integrity in every transaction to the mutual benefit of our customers, suppliers and employees.