

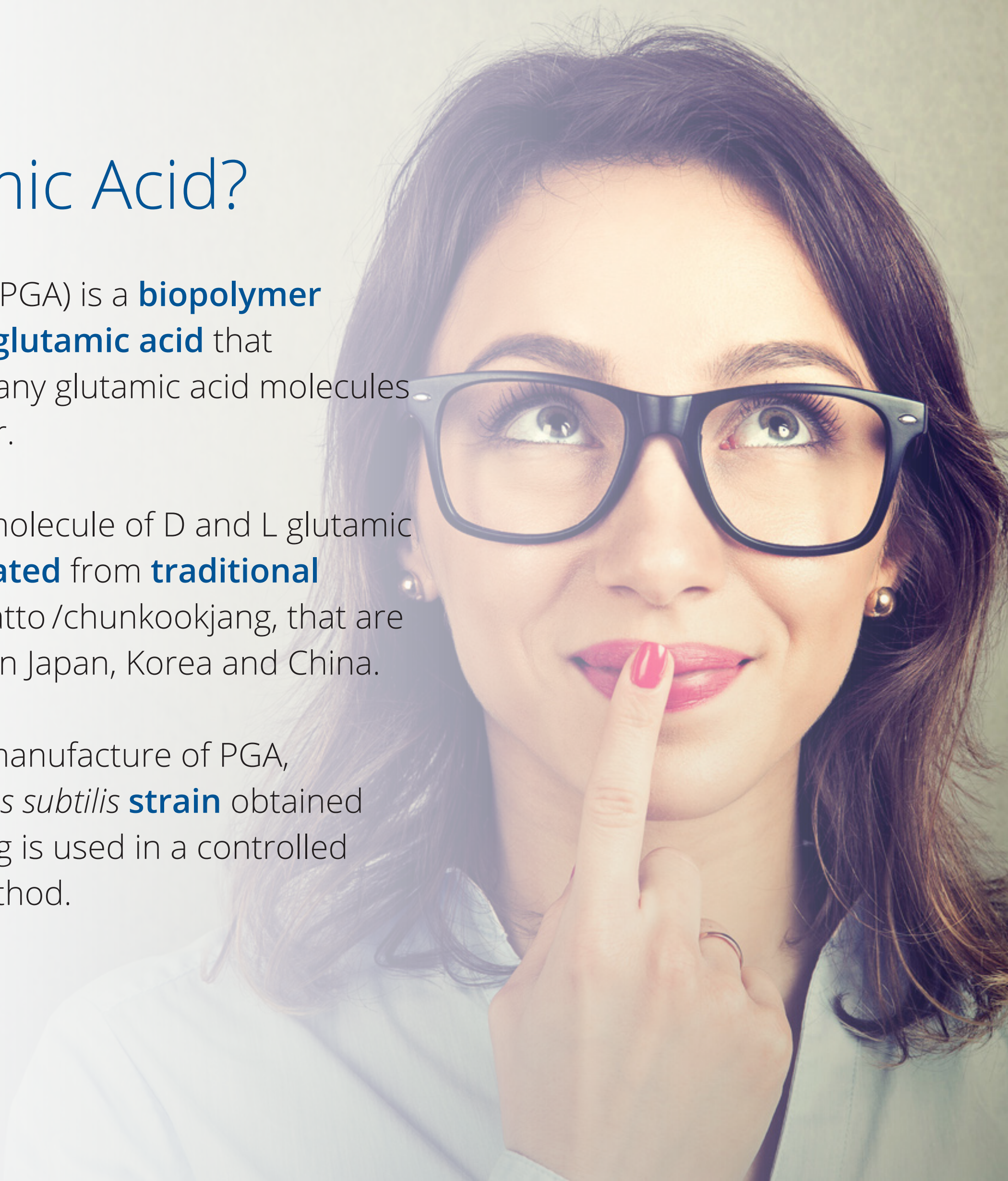
Spotlight on ...

Polyglutamic Acids



# What is Polyglutamic Acid?

- Polyglutamic acid (PGA) is a **biopolymer** of the amino acid **glutamic acid** that is formed when many glutamic acid molecules are linked together.
- PGA is a **natural** molecule of D and L glutamic acid originally **isolated** from **traditional soybean** foods, natto /chunkookjang, that are widely consumed in Japan, Korea and China.
- In the **industrial** manufacture of PGA, a non-GMO *Bacillus subtilis* **strain** obtained from chunkookjang is used in a controlled **fermentation** method.





# What does it do?

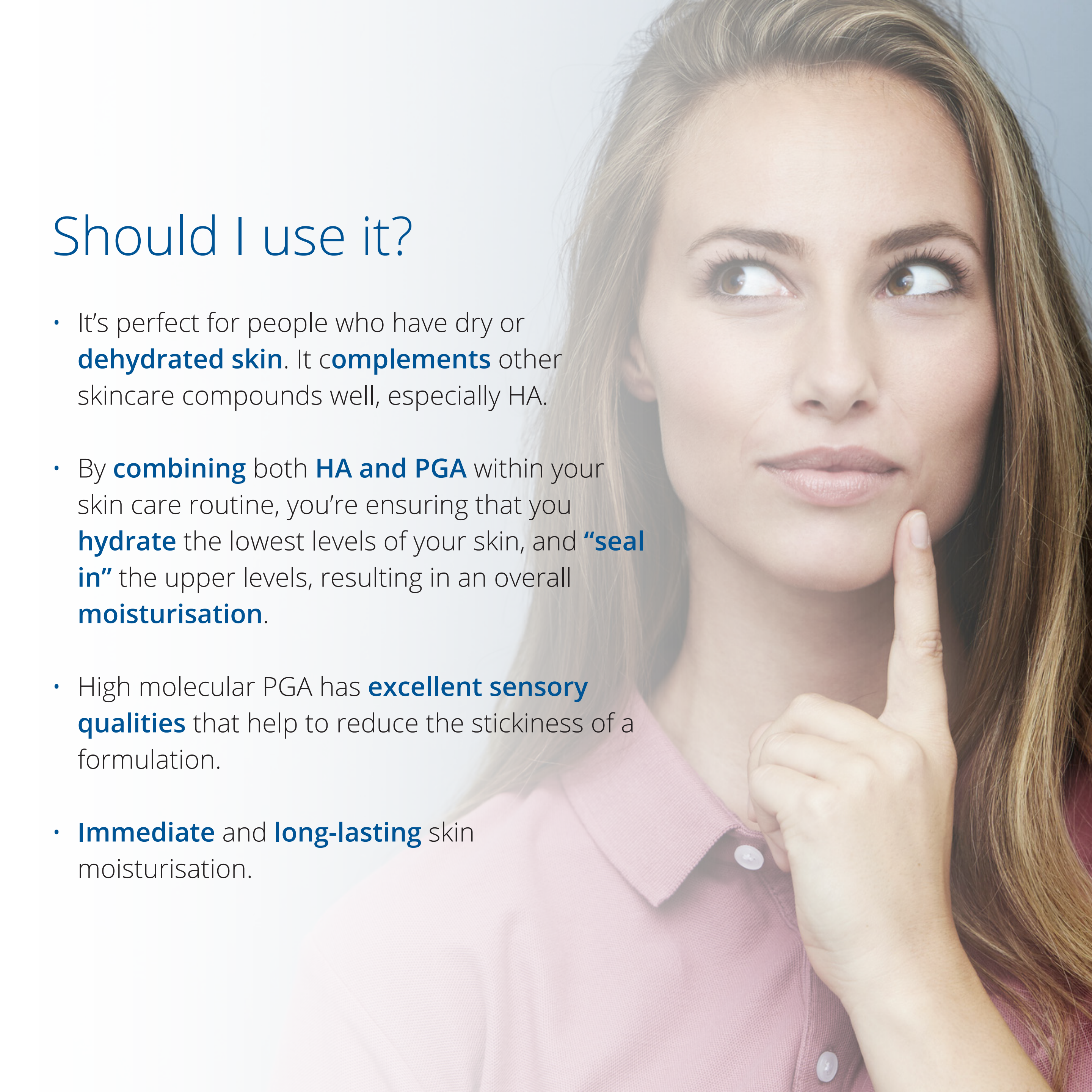
- PGA acts as a **humectant**, which means it **attracts** water into cells and forms a **protective** layer on your skin to keep water from **evaporating**. It can hold five times as much water as hyaluronic acid.
- **Restores** cell hydration and **reduces** the appearance of wrinkles and pores.
- PGA **improves** skin elasticity and helps to **seal** moisture in the skin.
- High molecular PGA sits **on top** of the skin, making it **glow** and more **luminescent**. It moisturises the skin while also giving it a **plumper** appearance.
- The loss of hyaluronic acid (HA) in the skin, which is broken down by an enzyme called **hyaluronidase**, is a part of the **ageing** process. PGA-containing products help to inhibit the action of hyaluronidase, resulting in more HA in the skin and a more **moisturised, rejuvenated,** and **hydrated** appearance.





# Should I use it?

- It's perfect for people who have dry or **dehydrated skin**. It **complements** other skincare compounds well, especially HA.
- By **combining** both **HA and PGA** within your skin care routine, you're ensuring that you **hydrate** the lowest levels of your skin, and "**seal in**" the upper levels, resulting in an overall **moisturisation**.
- High molecular PGA has **excellent sensory qualities** that help to reduce the stickiness of a formulation.
- **Immediate** and **long-lasting** skin moisturisation.







# Application Opportunities with PGA

- Face und body mists, skin softener, gel, water cream, serum, essence
- Anti-photo-ageing products
- Cleansers: micellar solution, foaming cleanser, shower sorbet
- Masks: hydrogel mask, water sleeping mask, bubble mask, jelly pack, splash mask
- Sun care products (pre and after sun)
- Dermal filler
- K-beauty products
- Glass-skin like products
- Fermented skin care products
- Hand sanitizer