

## The high-quality, reliable, and globally available Protaral® interior coatings have driven their success, especially in industries like pharmaceuticals, cosmetics, and food, where superior product appearance is crucial. **Protaral**® Interior coating for aluminium packaging, essential for protecting the quality of the products and preventing damage to the material with which they

come in contact.

### The four Protaral® lines:

### Protaral<sup>®</sup> Classic for aluminium collapsible tubes

Lacquers for the internal protection of aluminium collapsible tubes **based on epoxy-phenol resins.** Protaral® Classic interior coatings, available in different versions, either clear or pigmented, with medium to high solids content, are ideal for use with a wide variety of products, such as: foodstuffs, glues, hair dyes, depilatories, chemicals, pharmaceuticals and toothpaste.

#### Protaral® Monobloc for monobloc aerosol cans

Epoxy-phenol lacquers for the internal protection of aluminium monobloc aerosol cans. **Great flexibility and very good adhesion make these products suitable for mechanical forming (necking) of aerosol cans with a diameter of up to 74 mm.** Protaral<sup>®</sup> Monobloc interior coatings, available in different versions, either clear or pigmented, are suitable for a wide range of applications: from pharmaceuticals & cosmetics to food.

### Protaral® BPA NI coatings for collapsible tubes and monobloc aerosol cans

Polyester internal lining. Available in two versions, for food contact and for cosmetics ammonia resistant. The most innovative coating produced by Weilburger research laboratories. Protaral® BPA-NI is the first item in a new line of specific polyester interior linings for aluminium packaging.

### rotaral® COIL coatings for aluminium food containers

Epoxy and BPA NI polyester lacquers for high internal protection. Various colours are also available for the creation of decorative motifs.

All Protaral® products **comply with FDA 175-300, CE 10/2011** and its
amendments concerning materials
intended for food contact use.

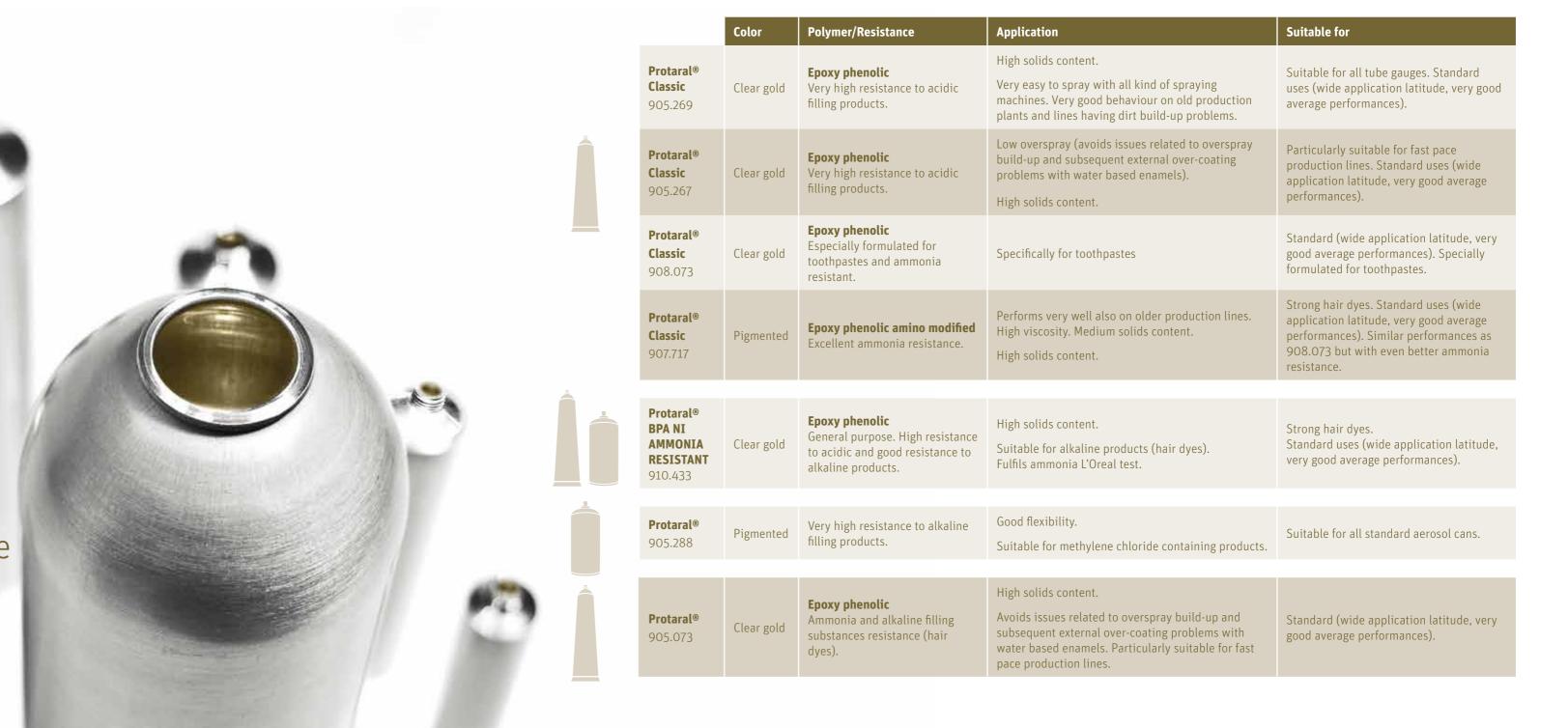


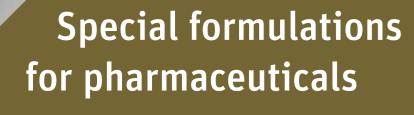
Protects the packaging but above all it **protects the food.**Odourless, clear, resistant to acids. **Safe.** 

# Special formulations for cosmetics

Aluminium packaging is extensively used in the cosmetics industry for products like hair lacquers (monobloc aerosol cans), hair dyes, and toothpaste (collapsible tubes). Specialized formulations are tailored to ensure resistance against ammonia, mono- and tri-ethanolamine, and highly alkaline or acidic contents.

Various formulations are available to meet the requirements of a **wide** range of products: from creams to hair dyes and toothpaste.





In the field of interior coatings for pharmaceutical packaging, Protaral® makes maximum use of its flexibility and innovative capacity to develop special formulations for specific materials defined by the manufacturer in accordance with the regulations and high standards required by a

demanding

sector.

|                              | Color      | Polymer/Resistance                                                     | Application                                                                                                                                                        | Suitable for                                                                                                                     |
|------------------------------|------------|------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| Protaral® Classic<br>905.269 | Clear gold | <b>Epoxy phenolic</b> Very high resistance to acidic filling products. | High solids content.  Very easy to spray with all kind of spraying machines. Very good behaviour on old production plants and lines having dirt build-up problems. | Suitable for all tube gauges. Standard uses (wide application latitude, very good average performances).                         |
| Protaral® Classic<br>905.267 | Clear gold | <b>Epoxy phenolic</b> Very high resistance to acidic filling products. | Low overspray (avoids issues related to overspray build-up and subsequent external over-coating problems with water based enamels).  High solids content.          | Particularly suitable for fast pace production lines. Standard uses (wide application latitude, very good average performances). |

The **Protaral®** research department tests specific formulations which are under continuous development to ensure they meet the stringent standards required by the pharmaceutical industry.

## Research & Development

**Protaral®** is a continuously developing product: tests and research are carried out every day on new applications to offer safe, reliable and innovative solutions with full respect for the environment and people.

Ongoing research and development efforts have led to the creation of Protaral® Hydro, a line of water-based interior coatings for aluminium packaging that has shown excellent performance in resistance, flexibility, and durability tests. Research is also underway on a new bisphenol-free product with promising results.





### **Hydro** – water-based lacquers

Protaral® Hydro, a water-based interior coating, was developed in keeping with our mission to offer **safe**, **reliable and innovative solutions** whilst fully respecting the environment and people.



## **Aluminium Foil Coatings**

Heat sealing laquers for internal protection for lids.



### **Very low VOC emissions**

Thanks to ongoing research on product improvement, emissions of volatile organic compounds from Protaral® coatings are well below the allowable limits laid down by European directives, thus further proving the company's commitment to the environment and people.



## Packaging 100% recyclable

The aim of an ever growing number of companies is to reduce the environmental impact of its products. Aluminium is a 100% recyclable material. To choose aluminium packaging is to make a choice that favours the environment.





