

BERLAC® REFLEXION: UNIQUE CHROME LOOK FROM SIMPLE LACQUER COATING

As a pioneer in the development of chrome replacement paints, Berlac AG includes Berlac® Reflexion in its portfolio, a mirror-smooth 3-coat paint system in automotive quality which stunningly imitates the appearance of chromed surfaces to a standard never achieved on the market so far. The results produced in automated coating processes on the widest range of component geometries are those obtained by electroplating or PVD metallisation.

With Berlac® Reflexion being an environmentally-friendly alternative to real chrome processes, designers in the automotive industry and all other life-style-oriented industrial sectors are unbound by any limits when it comes to demanding plastic application with visually refined high-end surfaces, even following the introduction of the Chrome VI ban.

TECHNICAL DESCRIPTION.

The 3-coat system consisting of PUR primer, base coat and PUR clear coat combines outstanding resistances with a wide spectrum of chrome effects. The cornerstone of Berlac® Reflexion is a specially designed primer as an adhesive bridge to many different substrates. Explicitly tailored to this primer and to the clear coat, the very thinly applicable, yet high coverage Reflexion base coat with special reflective pigments enables in compliance with strictly predetermined spraying and drying parameters brilliant effects together with an

exceptional adhesion between the base coat and the clear coat. Compared to a conventional silver pigment, the pigments used in the Reflexion base coat ensure a stronger luster effect and a more intense reflection. The subsequent clear coat additionally protects against weathering influences, as well as mechanical and chemical impact and allows various levels of gloss.

FIELDS OF APPLICATION.

Berlac® Reflexion has been approved by the automotive industry for both interior and exterior uses. Typical application areas include trim strips and covers, ventilation rings, operating elements as well as emblems and logos.

Berlac® Reflexion is the perfect choice for the automotive industry since it represents an alternative surface finish to galvanising and PVD coating. It complies with REACH requirements, provides corrosion resistance for critical exterior components, is hardly affected by bottlenecks in contract production capacity and offers persuasive economic advantages, especially in respect of high-volume models.

The coating system is also ideal for all manner of decorative applications in other sectors where a top-quality chromed surface is required, but where economic considerations preclude conventional chromium plating or PVD metallisation.

YOUR ADVANTAGES AT A GLANCE.

Broader colour palette for designers in the realm of spray paints

Economical processing: no need for expensive supplementary technologies

Reliable application: selective qualification of contract coaters worldwide in coordination with the OEMs in the automotive industry

Unlimited capacity: can be used with conventional coating equipment

Broad application spectrum: suitable with all component sizes, shapes and thicknesses and a wide range of substrates

Potential for functionalisation: laser-engravable and translucent, designed for post-process printing by means of pad printing

Environmentally-friendly technology with a future: contains no REACH-critical ingredients such as Chrome (III) and Chrome (VI)

Highly resistant coating solution: complies with German automotive specifications (interior and exterior uses)

PRODUCT PROFILE.

Tested in compliance with	TL 226 / TL 211 / DBL 7384
Tested on	PC/ABS (T65, T85 XF), PC, ABS
Substrates	Wide range of plastics
Application	3-coat application essential
System	Primer black/grey: 2-component PUR system Base coat glossy: 2-component system Top coat: 2-component PUR system
Levels of gloss	Primer: high gloss Base coat: glossy Top coat: glossy, satin gloss, matt
Colours	Basic aluminium, silver and chrome imitations (standard to dark chrome, 3Q7, Silvershadow, Light Silver) Additional colour variations are in development
Special properties	Above average scratch and abrasion resistance and excellent resistance to various chemicals Non-brittle coating solution for delicate and thin-walled components thanks to ultra-thin, elastic coats Laser-engravable for day/night designs: with possible backlighting of symbols, e.g. switches Translucent for applications on semi-transparent plastics, e.g. for creating ambient lighting Printable in pad printing process, as a fourth layer on the top coat (tested according to TL 226 and DBL 7384, approved by Daimler) It is essential to comply with the drying parameters quoted: Primer: 30 min. / 80°C Base coat: 30 min. / 80°C Top coat: 30 min. / 80°C
OEM approvals	Exterior: Audi, VW Interior: Audi, Daimler, Jaguar, Lotus, Porsche, VW

TEST RESULTS.

Cross-cut adhesion	GI0
Scratch resistance 4N and fingernails	no breaking of coating 1m
Abrasion resistance, Crockmeter 2000 double strokes	no change
Heat storage, 216 hours (90 days) at 90°C	GI0, scratch resistance OK, no change
Condensed water-constant climate, 240 hours/40°C at 96% humidity + 1 hour regeneration	GI0, no change
Hydrolysis test 168hours/90°C at 96% humidity (climate chamber)	GI0, minimal change in appearance
Resistance under the influence of temperature 24 hours/60°C (Coca Cola, orange juice, Nivea Sun SPF15, Nivea cream, sun lotion test blend)	GI0, no change
Resistance to hand cream and sun lotion, 24hours/80°C	GI0, scratch resistance OK, no change
Steam jet test, 150mm distance, water temperature 60°C, 60 sec., pressure 90 bar	value 0 (in accordance with DIN 55662)
Stone impact test	OK

BERLAC AG – COATING SYSTEMS TO GIVE YOUR PRODUCTS STRIKING ADDED VALUE.

PROVEN KNOWHOW.

Since 1928, our speciality has been the production of premium-grade special and effect coatings as well as printing inks for decorative and functional applications on plastic, chromium-plated and metallised substrates, carbon fibre composites, metal and glass.

COMPREHENSIVE SERVICE.

Whether you are an industrial contract coater, a tier-one or tier-two supplier coating in-house or an OEM, you will find us your ideal development partner for innovative niche solutions that call for interdisciplinary knowhow and precise adjustment to the processes of all your supply-chain partners. We accompany your innovative surface projects in close collaboration every step of the way from initial concept to technical fine-tuning for series applications on site.

COMPLETE SOLUTIONS FROM A SINGLE SOURCE.

Our comprehensive expertise and experience in manufacturing a product portfolio that ranges from primers through to printing inks enables us to supply ideally

coordinated integrated solutions (thermal and UV-curing) in the realm of solvent-based and waterborne spray coating systems and industrial screen and pad printing inks. Our innovative solutions for demanding coating tasks – also available in very small batches and for small series production – cater primarily to the following sectors: automotive, spectacle frames, domestic appliances, hearing aids, children's toys, medical technology, sanitary fittings, writing implements, sport and leisure, watchmaking and jewellery.

EXPERTS IN COATINGS.

Headquartered in Sissach, just outside Basel in Switzerland, Berlac AG is one of the eight brands that comprise the Berlac Group, a globally active group of medium-sized companies committed to the development and manufacture of top-quality solutions for finishing and protecting surfaces and for colouring plastics.



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