

■ dichtol AM UV Protection #2546

Product description

DIAMANT dichtol AM UV protection is a very low-viscosity, polymer-based impregnating agent for additively manufactured components. The product seals additively manufactured components gas- and liquid-tight and protects the component from UV radiation. This is made possible by a very thin protective layer of a few micrometers, which wraps around the particles and absorbs the harmful UV rays. dichtol AM UV protection seals and protects the component and can thus prevent discoloration of SLS printed polyamide (PA) components such as spectacle frames, for example.



Characteristics

- Efficient material consumption
- Wide range of applications through: dipping, brushing, injecting
- Temporary corrosion protection (transport protection)
- UV resistance for 3D printed parts (independent of the printing process)
- Temperature resistance up to +200°C
- PMMA base with good recoatability
- Fast curing at room temperature / no tempering or heating required
- Very good penetration behavior / depth effect for sealing against gas and liquid

Typical applications

- Capillary-active deep impregnation of micropores, hairline cracks and porosities
- Selective serial impregnation
- Individual impregnation (of large components)
- Impregnation of rapid prototyping and additive manufacturing components
- Sealing of porous graphite and ceramic components
- Protection of surfaces against UV radiation

Pack sizes

Article	Description
250ml	
1 Litre	
Custom sizes on request.	

Product data condition of delivery

Hue component A (resin)	transparent
Storability	5 years
Density	0,91 [g/cm ³]
Mixing ratio	1-component, no mixing required
Curing Surface drying	after 6 minutes (20 °C) after 3 minutes (30°C)
Mechanically treatable	after 15 minutes (20 °C) after 10 minutes (30°C)
chemical full resistance	24 h (20°C) 16 h (30°C)
Processing temperature	10-30 °C

Product data (outreacted product)

color	transparent
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Storage / Shelf life

Store in original, unopened container in a dry, cool and frost-free place (+5°C to +30°C). Shelf life 5 years.

Processing / Preparation

Remove dirt residues, foreign bodies, grease, liquids and other substances. Crack testing agents can negatively affect the negatively. We recommend DIAMANT Cleaner #1417 for cleaning soiled surfaces.

Application

The product is a 1-component system. Please observe the application temperatures specified in the technical data application temperatures and the information in the safety data sheet. Application on surfaces that are too warm can also too low temperatures can have a negative effect on the penetration behavior of the product.

Inject & Fill

Apply dichtol crosswise in 4 working steps at intervals of approx. 1 minute. Keep the surface moist for at least 5 minutes to ensure sufficient time for deep penetration.

Dipping

Immerse the component to be treated in dichtol and remove after a reaction time of at least 5 minutes. Please ensure that the component drips off properly. It is recommended to move the component while dripping to prevent deposits of dichtol from forming in undercuts or cavities.

Curing

dichtol AM UV Protection dries out physically in a few hours (approx. 1 hour per mm of wall thickness). Due to the rapid drying of Dichtol, it is possible to use the components again after a short time. See table „Technical data“.

Notes for 3D printing

We have found that 3D printed components are sometimes very different in terms of microstructure and pore formation.

We can therefore only provide limited application instructions for immersion times or exposure times. In the many tests

that we have carried out ourselves have shown a tendency for the extension of the immersion or exposure time to produce positive results.

Immersion times of up to 60 minutes were tested and in some cases showed considerably better results than shorter immersion times. Repeated application also showed significant improvements in some cases. We therefore recommend for 3D printed components (especially metals and polyamide), we therefore recommend longer soaking and immersion times where possible and, if necessary, repeating the impregnation process.

Repeat the impregnation process if the components are not yet sufficiently sealed.

Disposal

Do not empty into drains or water courses. Waste and containers must be disposed of in a safe manner. Disposal according to Directive 2008/98/EC on waste and hazardous waste. Proposal list of waste keys/waste names according to ECAC 080 111* Waste colours and varnishes containing organic solvents or other hazardous substances *Hazardous waste according to Directive 2008/98/EC (Waste Framework Directive). Non-contaminated and empty packaging can be recycled. Containers that are not emptied properly are hazardous waste.

Safety Data Sheet

Please read the appropriate safety data sheet before processing the product. Material Safety Data Sheets are available on a daily basis upon request via info@diamant-polymer.de or by phone +49-2166-98360. DIAMANT guarantees the product properties as long as they are stored and used according to the specifications listed here. DIAMANT does not assume any responsibility for the

processing of the material. Our technicians will be happy to answer any further questions you may have.

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