

■ dichtol HTR LS F #2670

Product description

dichtol HTR LS F is a very low viscosity, ready-to-use, flexibilised silicone polymer for sealing thermally sprayed coatings. The product has been specially developed for use on porous ceramic coatings, penetrates as deeply as possible into the porous structure and seals it reliably. The product has a high solids content (approx. 30 %) and is therefore particularly suitable for increasing the dielectric strength of thermal spray coatings. dichtol HTR LS F can be cured at 150 °C for accelerated processing and reaches full curing after 60 minutes.

Alternatively, the material can also be cured at room temperature.

Characteristics

- High solids content of approx. 30 % for maximum electrical insulation
- Permanent temperature resistance up to +300 °C
- Silicone resin base, low permittivity = good insulation properties
- Fast curing, 1h at 150 °C
- Curing at room temperature, 24h at 20 °C
- Easy application, ready to use
- Elastic silicone polymer = no cracking on the surface
- Perfect corrosion protection, non-stick properties
- Low sealant layer thickness on the surface (approx. 10µm)
- Very low viscosity 2mPas = maximum penetration depth for thermal spray coatings

SEALER PENETRATION TEST

On request, we can verify the penetration depth of our sealers for your special thermal spray coatings. We developed the DIAMANT penetration depth function test for this purpose back in 2018. With the help of this in-house test procedure, we are able to determine the penetration depth of sealers in thermal spray coatings. With the data obtained, we are able to adapt our sealers to your coating for maximum penetration depth. Interested? You can find more information on our website at:

<https://www.diamant-polymer.de/en/industry/thermal-spraying/permeability-test/>

Typical applications

- Capillary deep impregnation of porous structures as well as micropores and hairline cracks
- Impregnation of leaking cast parts and metallic structures
- Sealing of thermal coatings (LDS, APS, HVOF, etc.)
- Impregnation of rapid prototyping and additive manufacturing components
- Sealing of porous graphite and ceramic components

Available in the following versions

ARTICLE NO.	PRODUCT	DESCRIPTION
#2670	dichtol HTR LS F	1 Litre, 5 Litre
Special sizes on request		



Product data delivery condition

CHARACTERISTIC	VALUE
Color	Slightly yellowish
Density 20 °C	0,96 g/cm ³
Viscosity 20 °C	0,5 - 5 mPas
Solids content (arithmetic)	29,6 %
Solids content	2h/150°C: 18,5 - 21%
Refractive index 20 °C	1,395

Product data mixed

CHARACTERISTIC	VALUE
Processing temperature	+5 °C to + 40 °C
Surface drying 20 °C	26 min
Full curing 150 °C	60 min
Full curing 20 °C	24 hours
Consumption/yield	35 ml/m ²

Product data cured

CHARACTERISTIC	VALUE
Color	Transparent
Temperature resistant (permanent)	+ 300 °C
Dry film thickness	10µm
Recommended pore size	0 to 0,01 mm

Storage / shelf life

Store in the original, unopened container in a dry, cool and frost-free place (5 °C to + 20 °C). Shelf life 12 months.

Processing / Preparation

The pores to be sealed must be clean and dry. Make sure that there are no dirt residues or foreign bodies (e.g. crack sealant) in the pores, as these can negatively affect the penetration behavior of the sealer. We recommend DIAMANT Cleaner #1417 for cleaning dirty surfaces.

Application

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

Brushing & spraying

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.

Injecting & filling

Fill the space to be sealed (e.g. blind hole, threaded hole, cooling channel, etc.) with dichtol and leave to act for at least 5 minutes. Then pour off excess material if necessary.

Immersion

Immerse the component to be treated in dichtol and remove after a contact 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 HTR BSH dries out under room conditions in the presence of air humidity. Curing can be accelerated by temperature. We recommend a curing time of 60 minutes at +150 °C.

Disposal

Do not allow to enter drains or bodies of water. Waste and containers must be disposed of in a safe manner. Disposal in accordance with Directive 2008/98/EC on waste and hazardous waste. Suggested list of waste codes/waste designations according to EWC 080111* Waste paint and varnish containing organic solvents or other hazardous substances *Hazardous waste according to Directive 2008/98/EC (Waste Framework Directive). Non-contaminated and completely emptied packaging can be recycled. Containers that have not been properly emptied are hazardous waste.

Safety data sheet

Please read the relevant safety data sheet before using the product. Safety data sheets are available on a daily basis on request via info@diamant-polymer.de or by telephone on +49-2166-98360. DIAMANT guarantees the product properties as long as they are stored and used in accordance with the specifications listed here. DIAMANT accepts no responsibility for the processing of the material. Our technicians will be happy to answer any further questions you may have.

Disclaimer

The following supersedes the Buyer's documents. Seller makes no express or implied representations or warranties, including merchantability or fitness for a particular purpose. Although the information and data in this publication are based on our own results and are believed to be reliable, we cannot assume any responsibility for the suitability or results of the processing of the products described herein, nor do we assume any responsibility for loss or damage caused directly or indirectly by the processing of our products. The processor is obliged to ensure the quality, safety and other relevant properties of the products described by carrying out his own tests before using them. We guarantee the flawless quality of our products in accordance with our General Terms and Conditions, and the sole remedy of the buyer and the sole liability of the seller for any claims shall be the purchase price of the buyer. No reference in this publication shall be construed as an inducement, recommendation or authorization to infringe any intellectual property rights. When handling our products, the occupational hygiene and legal regulations must be observed. Please also refer to the relevant safety data sheets; this edition replaces all previous versions.

The technical data listed here was determined under laboratory conditions and verified by quality assurance processes on the day of product manufacture. We reserve the right to make changes without prior notice. The customer is responsible for verifying the up-to-dateness of the data and should contact DIAMANT before ordering the material. Application, use and processing are beyond our control and are therefore the sole responsibility of the purchaser. Should liability nevertheless arise, this is limited to the value of the goods supplied by us and used by you. We guarantee the flawless quality of our products in accordance with our general terms and conditions of sale and delivery. All technical data vary depending on the loads and conditions of use. We will provide specific application data on request in each individual case.