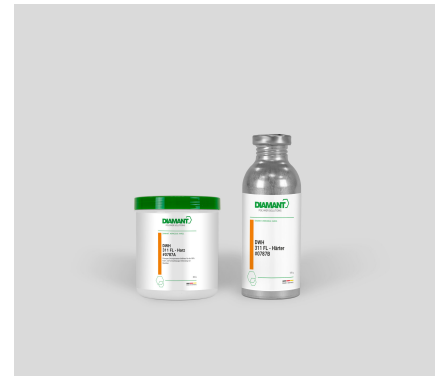


■ DWH 311 FL #0787

Product description

DWH 311 FL is a low-viscosity 2-component fine adjustment and adhesive coating based on epoxy resin with aluminium fillers. This is used for the form- and force-fitting filling and bonding of separating joints to components, assemblies and components of a wide variety of material components. By means of casting, injection and moulding, complex shapes and structures can also be created with a precision in the μm range.

DWH 311 FL can be detached by using a micro-thin layer of Diamant release agent on the counter surface. The result is an exact copy of the molded surface. High-precision preparation of surfaces and mechanical post-processing of the surfaces are not required. In modern production technology, process times and costs can be reduced many times over.



Typical applications

- Form- and force-fitting installation of guides in mechanical engineering,
- Adjusting coating for assemblies and elements of various materials.
- Full-surface lining of mouldings and elements as a replacement for feed plates.
- Load-bearing gap compensation on beams of portal milling and Gantry systems
- μm -accurate adjustment of bushes, centering and guide elements
- Fixing and / or centering of bearing bushes according to high precision alignment
- As filling and composite material in 3D printing + additive manufacturing

Characteristics

- Very high accuracy, μm -accurate moulding
- Very high compressive strength
- Excellent dimensional stability after curing
- Excellent load transfer due to complete contact of the surfaces
- Temperature resistance up to $+80^{\circ}\text{C}$
- Excellent damping properties thanks to the E-module ca. 8500 N/mm^2
- Aluminium grey color after curing
- High resistance to oils, cooling emulsions, mineral and synthetic coolants and lubricates and many other chemicals.

Chemical resistance

Please contact our technicians for questions about chemical resistance.

Pack sizes

Article	Description
DWL 1kg	

Custom sizes on request.

Product data condition of delivery

Hue component A (resin)	metallic light grey
Component B (hardener)	clear

Mixing ratio	[A : B] (gr) 87 : 13
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Pot life	50 minutes at 20°C
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Curing complete	24 hours at 20°C
for deformation	18 hours at 20°C

Processing temperature	10°C to 30°C
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Viskosität 20000-25000 mPas

Product data outreacted product

Density	1.55 (g/cm ³)
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Compressive strength	158 (N/mm ²)	DIN EN 12190:1994
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Strength	84
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E-Modul	8500 (N/mm ²)	DIN EN 13412:2006
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temperature resistance (permanent)	-20 to +80 °C
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temperature resistance (short-term)	-40 to +125 °C
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color after curing	aluminium-grey
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Shrinkage	less than 0,1%
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Storage / Shelf life

Store in original, unopened container in a dry, cool and frost-free place (+5°C to +20°C). Shelf life 2 years. Keep away from direct sunlight. Higher temperatures reduce the shelf life.

Preparation of the bonding surface

The surfaces to be coated should have a significant roughening to improve adhesion. The peak-to-valley height should be 0.5 mm (Rt = 500µm). The roughening can be produced, for example, with a cutter head with a large feed on a milling machine. Surfaces must be clean, dry and free of grease and oil. For cleaning dirty surfaces we recommend DIAMANT Cleaner #1417 or DIAMANT Cleaning Spray #1534. Surfaces to which DWH should not adhere should be coated with Release Agent #1354 or Release Spray #1355.

Mixing Procedure

To mix DWH 311 FL, add Component B completely into the Component A container. Mix intensively with a drill and the DIAMANT mixing propeller (Prod. No. #0789) (max. 250 rpm for approx. 2 minutes). Scrape off any material adhering to the wall of the container with a spatula and add to the mixture. Mix again thoroughly.

Ventilating

DWH 311 FL should be transferred in a long, thin uninterrupted stream into a clean vessel

Application description

DWH 311 FL can be poured free-flowing into the gap open at the top and of sufficient size. Alternatively, DWH 311 FL, after being transferred into a hand-held cartridge, can be injected through an inlet port into the prepared sealed cavity. To avoid air pockets, the cavity is filled from the lowest point.

Disposal

Unused residual material from the cans can be disposed of normally when mixed in the correct ratio and fully cured (EAKV 170203). Unmixed material must be disposed of as chemical waste (EAKV 080111). When booking the DIAMANT service team, waste will be disposed of by us.

Qualification and service

It is recommended to have the application carried out by trained DIAMANT technicians.

- To ensure the best possible quality and error-free application, we offer the following services:
 - Consultation by telephone and / or on site
 - Site supervision and monitoring during the work on site
 - Complete execution of the work by our experienced application techniciansFurther information can be found in the service data sheet

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.

Accessories / Processing equipment

#1354 Release agent, liquid#1355 Release agent, spray 500 ml#1417 Cleaner, liquid#1534 Cleaner, spray 500 ml#78 Spatula, DIAMOND green#0789 Mixing propeller#1573 1C empty cartridge 320 ml#1572 1C empty cartridge 160 ml#1574 1C cartridge press (manual) for empty cartridge 320 / 160 ml#1579 PE hose, clear, D= 8 mm#1577 Shut-off valves, D = 8 mm#1578 Screw-in hose nipple R1/4"#7010 Foam rubber sealing tape HxW 10 x 15 mm#1580 Foam rubber sealing tape HxW 4 x 9 mm

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