

DWH 310 FL #0795

Product description

DWH 310 FL is a low viscosity, 2-component, epoxy resin-based fine adjustment and adhesive coating with steel fillers. It is used for form-fit and force-fit filling and bonding of parting lines on components, assemblies and parts made of a wide variety of materials. Using casting, injection and moulding, even complex shapes and structures can be created with a precision in the μm range. DWH 310 FL can be removed from the mating surface using a micro-thin layer of diamond release agent. The result is an exact copy of the moulded surface. High-precision surface preparation and mechanical reworking of the surfaces is not required. In modern production technology, process times and costs can be reduced many times over.



Typical Application

- Positive and non-positive installation of guideways in mechanical engineering
- Adjusting coating for assemblies and elements made of a wide variety of materials
- Full-surface relining of mouldings and elements as a replacement for lining sheets
- Load-bearing gap levelling on beams of portal milling and gantry systems
- μm -precise casting of bushes, centring and guide elements
- Fixing and / or centring of bearing bushes after high-precision alignment
- As a filler and composite material in 3D printing and additive manufacturing

Characteristics

- Very high accuracy, μm -precise moulding
- Very high compressive strength
- Extremely dimensionally stable after curing
- Excellent load transfer due to full contact surface contact
- Temperature resistant up to $+80\text{ }^\circ\text{C}$
- Excellent damping properties thanks to the modulus of elasticity of approx. 8700 N/mm^2
- Steel grey colour after curing
- High resistance to oils, cooling emulsions, mineral and synthetic coolants, lubricants and many other chemicals

Chemical resistance

For questions about chemical resistance, please contact our technicians.

Available in the following versions

ARTICLE	PRODUCT	DESCRIPTION
#0795	DWH 310 FL	250g, 500g, 1kg
Special sizes on request		

Product delivery state

PROPERTY	VALUE
Component A (resin) 0795A	
Colour	Grey
Density at RT	2,4 g/cm ³
Viscosity	18.000 - 20.000 mPas
Component B (hardener) 0795B	
Colour	Yellowish to reddish brown
Density at RT	1,0 g/cm ³
Viscosity	1.500 - 3.500 mPas
Mixing ratio by weight	87:13

Product data mixed

PROPERTY	VALUE
Pot life	50 minutes at 20 °C
Curing complete	24 hours at 20 °C
Curing for demoulding	18 hours at 20 °C
Processing temperature	+10 °C to +30 °C
Viscosity / DIN EN ISO 3219:1994	12000 to 14000 mPas
Colour tone	Steel grey

Product data reacted

PROPERTY	VALUE
Density	2.0 (g/cm ³)
Compressive strength	165 (N/mm ²) DIN EN 12190:1994
Hardness	86
E-modulus	8700 (N/mm ²) DIN EN 13412:2006
Temperature resistance (permanent)	-20 °C to +80 °C
Temperature resistance (short-term)	-40 °C to +125 °C
Colour after curing	Steel grey
Shrinking	Less than 0.1%

Storage / shelf life

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

Processing / preparation

The surfaces to be coated should be roughened considerably to improve adhesion. The roughening depth should be 0.5 mm (Rt = 500µm). The roughening can be produced, for example, using a cutter head with a high feed rate on a milling machine. Surfaces must be clean, dry and free of grease and oil. To clean dirty surfaces, we recommend DIAMANT Cleaner #1417 or DIAMANT Cleaning Spray #1534. Surfaces to which DWH should not adhere should be coated with Seperator #1354 or Seperator Spray #1355.

Mixing process

To mix DWH 310 FL, add component B completely to the container of component A. Mix intensively using a drill and the DIAMANT mixing propeller (Prod. No. #0789) (max. 250 rpm for approx. 2 minutes). Remove any material adhering to the walls of the container with a spatula and add to the mixture. Mix thoroughly again.

Venting

DWH 310 FL must be transferred into a clean container in a long, thin, uninterrupted stream.

Application

DWH 310 FL can be poured freely flowing into the sufficiently large gap open at the top. Alternatively, DWH 310 FL can be injected through an inlet channel into the prepared, sealed cavity after it has been decanted into a hand-held cartridge. To avoid air pockets, the cavity is filled from the lowest point.

Accessoires

ARTICLE NUMBER	PRODUCT
#1354	Seperator
#1355	Seperator Spray
#1417	Cleaner, liquid
#1534	Cleaner Spray 500 ml
#78	DIAMANT Spatula green
#0789	Mixing Propeller
#1573	Empty cartridge 320 ml
#1573	Empty cartridge 160 ml
#1574	Cartridge press, manual 1K
#1579	Flexible PE hose
#1577	Shut-off-Valve, D = 8 mm
#1578	Screw-in nipple 1/4"
#7010	Foam rubber sealing tape HxB 10 x 15 mm
#1580	Foam rubber sealing tape HxB 4 x 9 mm

Qualification and Service

It is recommended that the application be carried out by trained DIAMANT technicians.

In order to guarantee the best possible quality and error-free application, we offer the following services:

- Advice by telephone and/or on site at the construction site
- Site supervision and monitoring during the work on site
- Complete execution of the work by our experienced application technicians

Further information can be found in the service data sheet.

Waste 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 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.

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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.