

■ DWH 311 P #0019

Product description

DWH 311 P is a high-viscosity two component adjustment and adhesive coating on epoxy-resin basis with aluminium fillers, designed for form- and forcefitting filling and gluing of joints on components, assemblies of different materials. Due to spatula- and molding techniques it is possible to even achieve precision in μm -range. When using a micro-thin layer of Diamant-parting agent on the counter surface DWH 311 P can be separated from it. The result is an exact copy of the molded surface. A high-precision preparation of surfaces and the mechanical post-processing of the surfaces is not necessary. In modern production processing times and costs can be dramatically reduced.



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 molding
- Very high compressive strength
- Extreme dimensional stability after curing
- Excellent load transfer due to complete contact of the surfaces
- Temperature resistance up to $+80\text{ }^{\circ}\text{C}$
- Excellent damping properties thanks to the E-module ca. 8600 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
DWJ 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) 92 : 8
--------------	---------------------

Pot life	50 minutes at 20°C
----------	--------------------

Curing complete	24 hours at 20°C
for deformation	18 hours at 20°C

Processing temperature	10°C to 30°C
------------------------	--------------

Viskosität = pastös

Product data (outreacted product)

Density	1.6 (g/cm ³)
---------	--------------------------

Compressive strength	160 (N/mm ²)	DIN EN 12190:1994
----------------------	--------------------------	-------------------

Strength	84
----------	----

E-Modul	8600 (N/mm ²)	DIN EN 13412:2006
---------	---------------------------	-------------------

temperature resistance (permanent)	-20 to +80 °C
------------------------------------	---------------

temperature resistance (short-term)	-40 to +125 °C
-------------------------------------	----------------

color after curing	aluminium-grey
--------------------	----------------

Shrinkage	less than 0,1%
-----------	----------------

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. Protect 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 P, add Component B completely to 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. The deaeration described below also results in a final mixing.

Deaerate

Remove DWH 311 P from the container immediately after mixing and spread thinly, crosswise, on a clean sheet. By spreading, a further mixing effect is achieved, but in particular stirred-in air bubbles are broken up. Furthermore, a part of the reaction heat is dissipated by the flat spreading, whereby the processing time is secured.

Description of use

First apply DWH 311 P with a trowel as a thin adhesive layer firmly onto the adhesive primer. Further trowel the product on the roof with a small excess without trapping air. The excess quantity applied should displace the air when moulding the components and thus ensure bubble-free application.

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. Safety data sheets are available daily on request via info@diamant-polymer.de or by phone at +49-2166-98 360. DIAMANT guarantees the product characteristics as long as they are stored and used according to the specifications listed here. DIAMANT assumes no responsibility for the processing of the material. For further questions, our technicians are at your disposal.

Accessories / processing equipment

#1354 Release agent, liquid#1355 Release agent, spray 500 ml#1417 Cleaner, liquid#1534 Cleaner, spray 500 ml#78 Filler, DIAMOND green#0789 Mixing propeller#7010 Sponge rubber sealing tape HxW 10 x 15 mm#1580 Sponge rubber sealing tape HxW 4 x 9 mm

Disclaimer

The following replaces the Buyer's documents. Seller makes no representation or warranty, express or implied, including merchantability or fitness for a particular purpose. Even if the information and information in this publication is based on our own results and is considered reliable, we cannot accept any responsibility for the suitability or results in the further processing of the products described herein. Likewise, we disclaim any responsibility for any 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 by means of his own tests before using the described products. We guarantee the flawless quality of our products in accordance with our General Terms and Conditions. The Buyer's sole remedy and the Seller's sole liability for any claims are the Buyer's purchase price. No reference in this document may be construed as an incentive, recommendation or permission to disregard existing intellectual property rights. When handling our products, the labour regulations and legal regulations must be observed. For the rest, we refer to the corresponding safety data sheets. This edition replaces all previous versions