

## **Product Description:**

DWH 311 P is a high-viscosity two component adjustment and adhesive coating on epoxy-resin basis with aluminum fillers, designed for form- and force fitting 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  $\mu\text{m}$ -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 moldings and elements as a replacement for feed plates.
- Load-bearing gap compensation on beams of portal milling and Gantry systems
- $\mu\text{m}$ -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,  $\mu\text{m}$ -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.  $8600\text{ N/mm}^2$
- Aluminum-grey color after curing
- High resistance to oils, cooling emulsions, mineral and synthetic coolants and lubricates and many other chemicals.

## **Shelf Life:**

Store in original, unopened container in a dry, cool, and frost-free place ( $+5^{\circ}\text{C}$  to  $+20^{\circ}\text{C}$ ). Protect from direct sunlight. Higher temperatures reduce the shelf life.

- 24 Months

## **Packing Size:**

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- 50-gram kit
- 100-gram kit
- 250-gram kit
- 500-gram kit
- 1,000-gram kit
- Custom kit size (available per customer request)

## **Application Instruction:**

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- **Preparation:**  
Roughen adhesion areas down to a roughness of 0,3 - ,05 mm (.012" - .020") and then clean chemically (optimum: Devitt cleaner).
- **Mixing:**  
Pour the hardener (Part B) fully into the resin (Part A) container. Mix manually or by machine (100 rpm for 5 minutes) until the hardener is mixed well with the resin. Ensure that material adhering to the side walls and the bottom is well incorporated.
- **Degas:**  
By pouring the mix in a long, thin, uninterrupted stream into a cartridge or the confined gap.
- **Application:**  
Pour in the prepared cavity slowly in a long, thin stream. Aim at the lowest point to fill from the bottom to avoid the entrapment of air or pump the liquid in from the bottom of the prepared gap into a prepared inlet port using a hand pump cartridge. To achieve coverage on larger components several inlet ports may have to be established. Ensure that the application is made safely within the pot lifetime.

Technical Data	Metric	Imperial
Pot life [min]	50 Minutes (+20°C)	50 Minutes (+68° F)
Curing time [Hr]	18 Hours (+20°C)	18 Hours (+68° F)
E-Modulus DIN 53457	8600 N/mm <sup>2</sup>	1,247,344 psi
Compressive Strength	160 N/mm <sup>2</sup>	23,206 psi
Hardness	87 Shore D	705 Brinell
Surface Pressure	14,5 N/mm <sup>2</sup>	2,103 psi
Adhesion Strength	16 N/mm <sup>2</sup>	2,320 psi
Bending Strength	85 N/mm <sup>2</sup>	12,328 psi
Thermal Conductivity	1,092 W/mK	.631 Btu/hr*ft*F
Coefficient of Thermal Expansion	4,5 x 10 <sup>-6</sup> K <sup>-1</sup>	2.5 x 10 <sup>-6</sup> F <sup>-1</sup>

Temperature Resistance [Permanent]	-20°C up to 80° C	-68°F up to 176° F
Temperature Resistance [Temporary]	-40°C up to 125°C	-104°F up to 257°F
Viscosity	25000 mPas	25000 mPas
Specific Weight	1.9 g/cm <sup>3</sup>	32 g/in <sup>3</sup>
Mixing Ratio [by weight]	925:75 (grams)	32.62:2.64 (oz)

## **Technical Service:**

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**Devitt Machinery Co.** offers within the product application a comprehensive technical service, which ranges from the R&D over application consultancy, product training to the application by trained engineers. Please contact our hotline to get an individual offer.

**Field Alignment Services & Training (F.A.S.T.)** offers field services to perform applications of products and engineered solutions developed by Devitt Machinery Co. For more examples, please visit [www.fieldsiterebuild.com](http://www.fieldsiterebuild.com) or contact our hotline to get an individual offer.

## **Safety:**

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Read the appropriate safety data sheet before using the product and proceed accordingly. For questions, our service technicians are always available.