

Technical Data Sheet

Product description	EPUSELF 140/5 – is a three component cast polymer based on an epoxy resin including a more special filler combination, which fulfills the highest requirements :
Properties	<ul style="list-style-type: none"> • Best possible absorption characteristics • Low thermal conductivity • Good rigidity • Possibility of “Do-it-yourself”-casting • Cast well without compaction
Application	For casting big weldments or cast constructions e.g. machine parts (pillars, machine stands and engine beds) as well as substructures for assemblies strained by vibration e.g. engines, gear, turbines, centrifuges and test rigs to get a higher static and dynamic rigidity.
Size of trading unit	25kg (other sizes on request)
Mechanical data <ul style="list-style-type: none"> • Density approx. 2,3 g/cm³ • Compressive strength¹ > 140 MPa • Flexural strength² > 35 MPa • Modulus of elasticity > 33,5 GPa (dynamic²) > 30,0 GPa (static³) • Thermal expansion coefficient approx. 18,0 · 10⁻⁶ K⁻¹ at 20 °C • Thermal conductivity approx. 2,7 W/(m·K) at 25 °C • Specific heat capacity approx. 0,9 J/(g·K) at 25 °C • Thermal diffusivity approx. 1,3 mm²/s at 25 °C • Logarithmic decrement not yet measured • Maximum grain size 5 mm • Wall thickness of cast > 25 mm • Mixing ratio A : B : C = 1,71 : 0,59 : 22,7 • Pot life 3 - 4 hours at 20°C • Processing temperature 15 - 25°C • Curing Time approx. 24 hours 	
Preparation of the surface	The surface must be free of dust, oil and grease as well as absolutely dry

<p>Preparation of the chambers before filling</p>	<ul style="list-style-type: none"> - leak-proof welded joints - sandblasted inside areas - free of fat, paint, tinder and grid - filling hole min. 100 x 100 mm or \varnothing 100
<p>Mixing process</p>	<p>The mixture of component A and component B must be mixed very thoroughly. Mix until no clouding is visible in the mixing container. Pay special attention to the walls and the bottom of the mixing container. While stirring, component C is slowly added to the pre-mix binder until an even, slightly-flowing mass is produced.</p> <p>The specified mixing ratios must be observed as exactly as possible (normally the components are batched in the exact mixing ratio). Adding more or less hardener will not effect a faster or slower reaction, but incomplete curing which cannot be corrected in any way.</p>
<p>Storage</p>	<p>Approx. 24 months in closed cans and tubes at 15 – 25°C. Protect the product against frost and severe heat.</p>
<p>Precautions</p>	<p>Our products can generally be handled quite harmless provided that certain precautions normally taken when handling chemicals are observed. Uncured materials must not, for instance, be allowed to come into contact with food. To prevent allergic reactions the wearing of impervious rubber or plastic gloves is necessary; likewise the use of eye protection. The skin should be cleansed at the end of each working period by washing with soap and warm water and be dried with disposable paper – not cloth towels. The use of solvents is to be avoided. Adequate ventilation of the working area is recommended.</p> <p>These precautions are described in detail in the Material Safety Data sheets for the individual products and the safety poster “Safe Handling of Epoxy and Polyurethane Systems”.</p> <p>These are available as pdf on demand.</p>
<p>Note</p>	<p>All recommendations for the use of our products are based on years of experience and the current state of our knowledge. Notwithstanding any such recommendations the Buyer shall remain responsible for satisfying himself that the products are suitable for his intended process or purpose.</p> <p>Since we cannot control the application, use or processing of the products, we cannot accept responsibility therefore. The Buyer shall ensure that the intended use of the products will not infringe any third party’s intellectual property rights. We warrant that our products are free from defects in accordance with and subject to our general conditions of supply.</p>

1 measured by the testing machine Form + Test Seidner, Typ 502/3000/100SP
 2 measured using: sound-resonance-analysis, RA100 Concrete, Lang Sensorik
 3 measured using: test frame model No 2070, Zwick Roell (Toni Technik)