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## TECHNICAL DATA SHEET

### ergo.<sup>®</sup> 1039 Gel

#### Product Description

**ergo.<sup>®</sup> 1039 Gel** is a toughened and medium viscous adhesive, which is suitable for all applications, where good resistance against impact, peeling and long term vibrations is requested. **ergo.<sup>®</sup> 1039 Gel** shows excellent strength on metals, ceramics and glass and resists against a wide range of changing climatic conditions.

**ergo.<sup>®</sup> 1039 Gel** is a fast curing two-component system, which requires the accelerator **ergo.<sup>®</sup> 1090**.

#### Advantages

- High resistance against impact and peeling
- Good long-term resistance against thermal cycles
- Good gap-filling properties up to 0,50 mm
- May be used on vertical areas (does not flow)
- Solvent free, 100% reactive substance
- Fast and total curing with accelerator

#### Characteristic features Gel

##### Liquid product:

Chemical base	:	modified Urethanacrylate
Viscosity	:	> 100'000 mPas
Density	:	1,08 g/cm <sup>3</sup>
Colour	:	slightly yellow, cloudy
Flash point	:	> 100° C (COC-method)
Shelf life	:	min. 12 month at room-temperature

##### Cured product:

Tensile shear strength	:	> 15.0 N/mm <sup>2</sup> Alu/Alu
Peeling resistance	:	> 3,0 N/mm
Impact resistance	:	> 4,0 J/cm
Thermal range	:	- 55° C bis + 150° C
Resistance against solvents	:	very good

Film thickness 0,25 mm	:	
Shore D hardness	:	55 - 60

#### Electric Properties Gel

Dielectric constant @ 1 MHz (ASTM D-150)	:	3,0
Loss factor @ 1 MHz (ASTM D-150):	:	0,010
Contact resistance	:	> 1 x 10 <sup>14</sup> ohm-cm
Surface resistance	:	> 2 x 10 <sup>13</sup> ohm-cm



Breakdown voltage (ASTM D-149) : >450 V/mm

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## ergo.<sup>®</sup> 1090 Accelerator

This accelerator is working together with ergo.<sup>®</sup> 1039 and gives first strength within seconds and excellent final strength. It works on glass, metals and ceramics.

### Characteristic features Accelerator

Chemical base	: Methacrylic ester
Viscosity	: 15 mPas
Density	: 1,08 g/cm <sup>3</sup>
Colour	: slightly brown
Flas point	: > 100° C (COC-Methode)
Shelf life	: min. 12 month at room-temperature

### Curing

Curing	: with ergo. <sup>®</sup> 1090
Fixture time	: 30 seconds for gaps from 0,05 bis 0,1 mm
Final strength	: gap < 0,10 mm, 4 hours at 23° C gap > 0,10 mm, 12 hours at 23° C
Gap filling property	: 1,0 mm if accelerator is applied on both parts
Shrinking	: < 3%

### How to use the products

Depending on the gap, the accelerator **ergo.<sup>®</sup> 1090** has to be applied as a uniform film on only one or, if the gap is >0,5mm, even on both parts

The accelerator consists out of 100% reactive substance and shall not evaporate.

A sufficient amount of **ergo.<sup>®</sup> 1039** must be applied and the parts must be joined immediately.

Join the part immediately (latest after 10 minutes), fix them and do not move them before the fixture time (30 seconds) has passed.

#### WARRANTY INFORMATION - PLEASE READ CAREFULLY

The information contained herein is offered in good faith and is believed to be accurate. However, because conditions and methods of use of our products are beyond our control, this information should not be used in substitution for customer's tests to ensure that KISLING products are safe, effective, and fully satisfactory for the intended end use. KISLING sole warranty is that the product will meet the KISLING sales specifications in effect at the time of shipment. Your exclusive remedy for breach of such warranty is limited to refund of purchase price or replacement of any product shown to be other than as warranted. KISLING specifically disclaims any other express or implied warranty of fitness for a particular purpose or merchantability. Unless KISLING provides you with a specific, duly signed endorsement of fitness for use, KISLING disclaims liability for any incidental or consequential damages. Suggestions of uses should not be taken as inducements to infringe any particular patent.