

TECHNICAL DATASHEET

Adhesive 1039 + Activator 1090

(No-mix system)

Description

1039 is a gel-like toughened adhesive. It is a so called "no-mix" system (two-component system), which requires the activator 1090.

1039 +1090 is suitable for all applications, where good resistance against impact, peeling and long-term vibrations is requested. 1039 +1090 shows excellent strength on metals, ceramics and glass and resists against a wide range of changing climatic conditions.

Advantages

- High resistance against impact and peeling
- Good long-term resistance against thermal cycles
- Solvent free, 100% reactive substance
- High temperature resistance (up to 150°C)
- Very fast and total curing with activator 1090
- Very short fixture times

Physical properties (liquid product)

Chemical base	1039 1090	Modified Urethane-Acrylate Methacrylic Ester
Curing System		2-component-system ("no-mix")
Shelf life		12 months at $\leq 25^{\circ}\text{C}$
Colour	1039 1090	Colourless, translucent Slightly brown
Viscosity at 25°C	(DIN EN ISO 2555, Spindle 6) 1039 at 1 rpm at 100 rpm	$\sim 75'000 \text{ mPa}\cdot\text{s}$ $\sim 3'600 \text{ mPa}\cdot\text{s}$
Viscosity at 25°C	(DIN EN ISO 12092, Cone / plate method) 1090 (cone 50, 100s^{-1})	$\sim 450 \text{ mPa}\cdot\text{s}$
Density	1039 1090	$\sim 1.08 \text{ g/cm}^3$ $\sim 0.98 \text{ g/cm}^3$

Curing properties

at 23°C and gap size $\leq 0.1\text{mm}$

Fixture time	$> 1\text{ N/mm}^2$	$\sim 30\text{ seconds}$
Functional time	$> 10\text{ N/mm}^2$	$\sim 180\text{ seconds}$
Final strength		$\sim 4\text{ hours}$

(Other temperature and/or gap size may influence the curing speed)

Physical properties (cured product)

Thermal range $-55\text{ °C up to }150\text{ °C}$

Tensile shear strength acc. to DIN EN 1465

Curing and test temperature: 23 °C; metals corundum blasted / plastics cleaned

Aluminium	$> 15\text{ N/mm}^2$
Steel	$> 15\text{ N/mm}^2$
Stainless Steel	$> 15\text{ N/mm}^2$
Copper	$> 10\text{ N/mm}^2$
Brass	$> 8\text{ N/mm}^2$

How to use the products

- Please make sure, that the adhesive gap is $<0.1\text{mm}$ ("smaller than")
- The activator 1090 has to be applied as a uniform film on one part only.
It consists out of 100% reactive substance and shall not evaporate.
- A sufficient amount of 1039 has to be applied as a uniform film on the other part.
- Join the parts immediately (latest after 10 minutes), fix them and do not move them before the fixture time (at least 30 seconds) has passed.
The mixing of the components is done by joining.

Precautions

For your own safety, please refer to the information of the concerned MSDS and for the correct handling the "user instructions".

The information in this data sheet is based on the results of our research and experience. However, the suggestions herein concerning the use, application, and processing of the products (collectively, "the methods") **are non-binding recommendations only**. It is the user's sole responsibility to determine the suitability and safety of these methods, based on the user's particular purpose in using the products. Before relying on the reliability and safety of any parts that are bonded using the products, it is extremely important that the user test the reliability and safety of the parts that are bonded. Failure to do so could result in serious personal injury. Because of the use of the products are within the purchaser's sole control, Kisling Corporation specifically disclaims all warranties, express or implied, including warranties of merchantability or fitness for a particular purpose, arising from the sale or use of the products described herein. Kisling Corporation specifically disclaims any liability for consequential, incidental, or other damages of any kind, including lost profits. Kisling Corporation's liability for damages shall not exceed the purchase price of the products used.

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