

**KEOL****SILICONE ADHESIVE****K-SEAL 313UV**

313UV adhesive from the K-SEAL range is a two-component transparent silicone elastomer, cured by UV and intended especially for screens (Optical bonding). 313UV adhesive from the K-SEAL range is low viscosity.

- IDEAL FOR OPTICAL BONDING
- LOW TACKINESS FOR EASY ALIGNMENT
- LOW VISCOSITY
- EXCELLENT TRANSPARENCY

DENSITY	0.97g/cm <sup>3</sup>
COLOR	Light
VISCOSITY	2000±500 mPa.s
ELONGATION %	-

PROPERTIES	METHOD	VALUE
<b>PRODUCT DATA (uncured)</b>		
<u>Component A</u>		
Color		Clear
Viscosity	ISO 3219	2100 ± 500 mPa.s
Density		0.97g/cm <sup>3</sup>
<u>Component B</u>		
Color		Clear
Viscosity	ISO 3219	1000 ± 100 mPa.s
Density		0.97g/cm <sup>3</sup>
<b>PRODUCT DATA (CATALYZED A+B)</b>		
Component Catalyst		B
Mixing ratio	A:B	10:1
Viscosity of mix	ISO 3219	2000 ± 500 mPa.s
Pot life @23°C		24 hours
<b>PRODUCT DATA (Cured)</b>		
Density @23°C		0.97g/cm <sup>3</sup>
Volume shrinkage	$(1 - d_{uncured} / d_{cured}) * 100$	<0.1%
Dielectric constant (100 Hz)		2.7-2.8
Traction force (glass / glass)	Test speed: 300mm/min)	3.5
Transmittance	UV-VIS	>99.0% ref.glass
Haze	ASTM D1003-97	0.02
Yellowness index	ASTM D313-73	0.09
Refractive index @25°C	ABBE	1,405

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**KEOL****SILICONE ADHESIVE****SURFACE PREPARATION**

All surfaces must be clean and free of contaminants that will prevent **313UV adhesive from the K-SEAL range** curing. Examples of inhibiting contaminants are sulfate-containing materials, plasticizers, urethanes, amine-containing materials, and organometallic compounds - especially organotin compounds. If a substrate's ability to inhibit cure is unknown, a small scale test should be performed to determine compatibility.

**PRODUCT APPLICATION****MIXING**

Part A (**K-SEAL 313UV A**): Part B (**K-SEAL 313 CATALYST**) = 10:1  
**K-SEAL 313UV** can be mixed by mixing facilities etc.

Mixer type	Speed	Mixing time
mixer	1000 rpm	3.0 mins
Centrifuge	2000 rpm	1.5 mins

**CURING**

Curing speed can be adjusted by UV power and time. Heat can also speed up the curing process. We recommend carrying out preliminary tests to optimize the conditions for a particular application. Full processing instructions are given in the table below.

Recommended lamp type: UV-A (ex. Mercury, metal halide, etc.), LED 365 nm

Lamp Type	UV dose [mJ/ cm <sup>2</sup> ]	Number exhibition	Tack free time @23°C
UVA	More than 2000	1	5 minutes
365nm LEDs	More than 3000	1	15 mins

If the applied lamp is a 365 nm LED lamp, the higher UV irradiance would be better. (ex. 2000mW/cm<sup>2</sup>).  
 Tack free time can be increased or decreased depending on the applied irradiance of energy source.

**STORAGE**

The 'best use before end' by end" date for each batch appears on the product label. Storage beyond the date indicated on the label does not necessarily mean that the product is no longer suitable for use. In this case, however, the properties required for the intended use must be checked for quality assurance reasons.

**PRODUCT HANDLING PRECAUTIONS**

According to the latest findings, **313UV adhesive from the K-SEAL range** being an addition curing silicone rubber does not contain toxic or aggressive substances which may require special handling precautions. The general rules of industrial hygiene must however be respected.

**IMPORTANT INFORMATION**

The data presented in this manual are in accordance with the current state of our knowledge, but do not exempt the user from carefully checking all the supplies upon receipt. We reserve the right to modify the product constants in the context of technical progress or new developments. Recommendations made in this brochure should be verified by preliminary testing due to processing conditions over which we have no control, particularly where raw materials from other companies are also used. The recommendations do not release the user from the obligation to investigate the possibility of infringement of the rights of third parties and, if necessary, to clarify the position.

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