

UV ADHESIVE

KEOL K-LITE 281

KEOL K-LITE 281 has been specially developed for bonding of plastics materials and assemblies subject to critical environment (moisture, solvents).

It is a translucent acrylic-based photosensitive resin suitable for a variety of applications with different dispensing methods : diaphragm valves, volumetric valves, non-contact valves.

- SINGLE COMPONENT
- UV CURABLE
- FAST CURING
- CHEMICAL RESISTANCE

CHEMICAL BASIS

ACRYLATE

CURING MODE

UV

CURING TIME

15 SECONDS

COLOR

WHITE
TRANSLUCENT

PROPERTIES	UNITS	K-LITE 281
Content (dry extract)	%	100
Chemical base	-	Acrylate
Appearance	-	Liquid
Color	-	White Translucent
Viscosity @22°C <small>1,5 RPM, S5 Brookfield mobile</small>	mPa.s	80 000
Bulk density	g/cm ³	1.09
Thixotropic index	-	4
Absorption wavelength	nm	385 - 405
Tensile strenght – ISO 527-1		1
Elongation at break – ISO 527-1	%	120
Shear strength <small>Lap shear strength –EN1465</small>	MPa	PC / PC 5
		PC / Aluminium 5457 4
		PMMA / Stainless steel 304 5
		PMMA / PMMA 5
Hardness	Shore D	40
Exposure temperature	°C	-40 to +120
Optimal adhesion	Hours	24
Shelf life in packaging	Months	6

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SURFACE PREPARATION

The strength and durability of joints depends on proper pretreatment of the surfaces to be bonded. At a minimum, the bonded surfaces should be cleaned with a good degreasing product to remove all traces of dust, dirt, oils or grease. KEOL CLEANER is particularly recommended for cleaning surfaces before bonding.

Pretreatment of thermoplastic materials such as PVC, polycarbonate, polypropylene, PMMA, etc., can be done using a mild mixture of ethers or isopropanol. It is not recommended to use strong solvents as they may damage plastic surfaces. For any other surface, acetone or trichloroethylene can be used for pretreatment. Never use petroleum or any other solvent.

When possible, perform mechanical abrasion to remove paint from surfaces (if necessary) and to increase the strength and retention of the adhesive. Allow the pre-treated surface to dry before applying the adhesive.



APPLICATION & PACKAGING

KEOL K-LITE 281 adhesive is available in 30cc syringes, 600cc and 900cc cartridges.

➤ UV irradiation parameters : LED lamp 405nm

Thickness = 0,2mm	
Irradiance (mW/cm ²)	Time (s)
300	15
1500	10

Thickness = 4mm	
Irradiance (mW/cm ²)	Time (s)
1000	30
3500	15



PRODUCT STORAGE

Shelf life of K-LITE 281 adhesive is 6 months in its original unopened packaging. The product can be stored in a closed container, in a dry place protected from humidity and excessive heat. Store between 15°C and 25°C. Exposure to higher or lower temperatures will result in a reduction of the indicated shelf life, as well as possible loss of performance.



PRECAUTIONS FOR HANDLING THE PRODUCT

K-LITE products are generally safe to handle, provided that precautions regarding handling of chemicals are taken. The cartridge product should not come into contact with food products or cooking utensils, and certain safety measures should be taken to prevent the contents of the cartridges from escaping and coming into contact with the skin, as people with very sensitive skin may be affected. The use of rubber or plastic gloves is recommended, as is eye protection. The skin should be thoroughly cleaned at the end of each work session by washing with soap and warm water. Avoid the use of solvents. To dry the skin, use disposable paper. Adequate ventilation for the work area is recommended. These precautions are explained in more detail in the safety data sheet for the individual products and you should refer to this document for further information.



NOTE

The information, and particularly the recommendations concerning the application and KEOL products, are given to you in good faith and are based on current knowledge and experience of the products having been properly stored, handled and applied under normal conditions. KEOL cannot assume responsibility for the results obtained by others since we have no control over their method. It is up to the user to determine the suitability of the products for the specific application for any production methods mentioned in this document. Also, it is up to the user to adopt the necessary precautions as advised for the protection of the establishment and persons against any kind of risks that may arise during the handling and use of the products. KEOL cannot assume any warranties mentioned or implied, including warranties of merchantability or fitness for a particular reason, arising from the sales or use of KEOL products. KEOL cannot assume responsibility for incidental or consequential damages of any kind, including lost profits. Users should always refer to the most recent edition of the technical data sheet for the relevant product. Copies of this document will be provided on request.