

KRYLEX®
 Adhesives and sealants

KI001
 CYANOACRYLATE PENETRATING
 INFILTRANT FOR ADDITIVE MANUFACTURING

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TECHNICAL DATA
PRODUCT DESCRIPTION

KRYLEX® KI001 is a specially developed low viscosity, low odour cyanoacrylate, with exceptional wicking properties. KI001 is specifically formulated to effectively penetrate parts created by 3D printers.

The lower viscosity of KI001 infiltrant allows the product to soak into the porous surface without leaving a thick film on the top surface.

The transparent film created by KI001 infiltrant allows light to pass into the surface of the part. The colours of the part will appear much more vibrant and full after infiltration, perfect for great looking concept models.

TYPICAL APPLICATIONS

KRYLEX® KI001 ideal for toughening and sealing products made with 3D printing.

PROPERTIES OF MATERIAL

	UNIT	VALUE
Chemical type		β-methoxyethyl
Appearance		Clear liquid
Specific Gravity		1.06
Viscosity ¹	(Range) cPs	3 - 8
	Typical Value cPs	5
Penetration Depth ²	mm	0.5 - 3
Cure Time @ 20°C	Mins.	<15
Flash Point	°C	> 85
Shelf Life @ 20°C	Months	6
Temperature Range	°C	-50 to +70

¹ Cone and Plate Rheometer, controlled stress

² Cure time is the point in time when the infiltrated part is dry and has achieved its full strength. Penetration depth is dependant on substrate used.

CURE SPEED VS. SUBSTRATE

The speed of cure of KI001 varies according to the substrates used to create the 3D model.

CURE SPEED VS. ENVIRONMENTAL CONDITIONS

Cyanoacrylate adhesives require surface moisture on the substrates in order to initiate the curing mechanism. The speed of cure is reduced in low humidity conditions. Low temperatures will also reduce cure speed. All figures relating to cure speed are tested at 21°C.

CHEMICAL / SOLVENT RESISTANCE

KRYLEX® KI001 exhibits excellent chemical resistance to most oils and solvents including motor oil, petrol, ethanol, propanol and freon.

KI001 will not be resistant to high levels of moisture or humidity over time.

DIRECTIONS FOR USE

After any remaining loose powder is removed from the model, the infiltrant is sprayed, or poured onto the model, or the model is dipped into an open bath.

KRYLEX® KI001 wicks into the porous model and hardens forming a strong durable product.

Parts can be infiltrated first with KI001 to add strength and then waxed to further enhance the vibrancy of the colour and to improve the surface finish.

The odour of a standard cyanoacrylate can be very irritating during the open dipping process; with KI001 infiltrant the odour is drastically reduced, making the work environment considerably more comfortable.

PRECAUTIONS IN USE

KRYLEX® KI001 infiltrant is a cyanoacrylate based product, so care must be taken when handling. Wear appropriate gloves and eye / face protection. Avoid contact with skin and clothing.

STORAGE

Store in a cool area out of direct sunlight. Refrigeration to 5°C gives optimum storage stability.

PRESENTATION

Bottles: 50g and 500g.
 Available in bulk for use with dispensing systems.

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Bottles: 50g and 500g.
 Available in bulk for use with dispensing systems.

GENERAL INFORMATION

For safe handling of this product consult the Material Safety Data Sheet.

DATA RANGES

The data contained in this data sheet may be reported as typical value and/or range. Values are based on actual test data and are verified on a regular basis.

DISCLAIMER

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