



## U304

## TECHNICAL DATA SHEET

U304 is a medium-to-high viscosity, medical-grade UV-curable adhesive designed for bonding a wide variety of plastics in a multitude of configurations. It is strong, flexible and well-suited to bonding dissimilar substrates. U304 is certified to the ISO standard 10993—Part 5 for Cytotoxicity, making it suitable for use in medical devices.

### Physical Properties - Monomer (Uncured)

Base Compound	Modified Acrylate
Appearance	Light Straw Liquid
Viscosity	1000 +/- 150 cps
Shelf Life	9 months
Storage Condition	8°C to 21°C in darkness
RoHS-Compliant	Yes

### Physical Properties - Polymer (Cured)

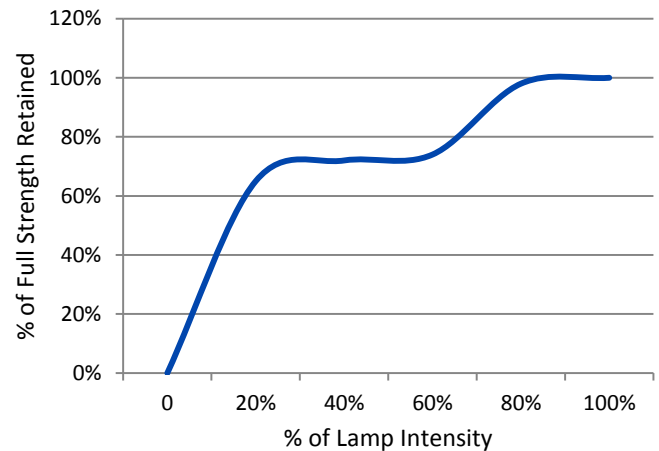
Setting Time*	< 6 seconds
Full Cure Time	24 hours
Appearance	Colorless solid
Tack-Free Surface?	Yes
Elongation	175%
Shore Hardness	- (Shore A) 70 (Shore D)
Optimal Wavelength	300 to 420 nm

\*Polymerized @ 395nm @ 50mW/cm<sup>2</sup>

### Specifications and Approvals

ISO 10993-5

### % Strength Retained @ Given Dosage



### Performance of Cured Adhesive

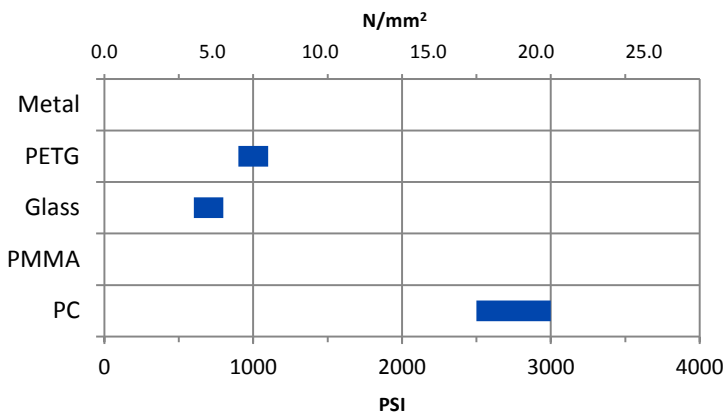
Substrate	N/mm <sup>2</sup>			PSI		
	n/r	to	n/r	n/r	to	n/r
Metal	n/r	to	n/r	n/r	to	n/r
PETG	6.2	to	7.6	900	to	1100
Glass	4.1	to	5.5	600	to	800
PMMA	n/r	to	n/r	n/r	to	n/r
PC	17.2	to	20.7	2500	to	3000

\* n/r = not recommended for use on this substrate

### Solvent Resistance

Solvent	Example	Resistance
Alcohol	Ethanol, Methanol	+++
Ester (aromatic)	Ethylacetate	---
Ketone (aromatic)	Acetone, Benzophenone	---
Aliphatic hydrocarbon (alkanes)	Petrol, Heptanes, Hexane	++-
Aromatic hydrocarbons	Benzyl, Toluol, Xylol	++-
Halogenated hydrocarbons	Methylenchloride, Chloroform, Chlorobenzol	---
Weak aqueous acid	Nitrite, muriatic acid, sulphuric acid, phosphoric acid	+++ (--- if concentrated)
Weak aqueous base	sodium hydroxide solution, caustic potash	+++ (--- if concentrated)

### Performance Range, by Substrate



Authorized Distributor



1-800-375-0605 www.rudolphbros.com

## General Instructions

Surfaces to be bonded should be clean and dry. Dispense a drop or drops to one surface only. Apply only enough to leave a thin film layer after compression. Press parts together and expose to UV dose when ready. An adequate bond should develop rapidly, depending on UV dose efficacy, and maximum strength is attained in 24 hours. Wipe off excess adhesive from the top of the container and recap. Products, if left uncapped or exposed to sunlight, may deteriorate or cure prematurely.

## Curing Performance

Photoinitiation initiates the curing process. Handling strength is reached in a short time, and will vary based on UV dose efficacy, environmental conditions, bond line gap, and other factors. Product will continue to cure for at least 24 hours before full strength and solvent resistance is developed.

## Storage

Products should be stored unopened in a cool, dry place out of direct sunlight. Products should be kept at room temperature away from direct light. Protect from extreme heat or cold, do not refrigerate.

## Note

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**For safe handling information on this product, consult the Safety Data Sheet (SDS)**

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