



PARSON ADHESIVES, INC.

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PARLITE[®] 4116 UV Curable Adhesive

PARLITE 4116 is a clear, colorless, low viscosity liquid UV curable adhesive that will cure when exposed to ultraviolet light. Since it is one-part system and 100% solids, it offers many advantages in bonding where the adhesive can be exposed to UV light.

Feature:

- Easy to use one part system, eliminates drying and heat curing
- Curing time is remarkably fast, and is dependent upon thickness applied and the amount of UV light energy available.
- Its high wetting and excellent adhesion combined with low shrinkage result in superior bonding.

Advantages:

- Excellent clarity, low shrinkage, and a slight flexibility make it superior to other materials for glass to glass and glass to metal bonding.
- PARLITE 4116 exhibits good resistance to temperature extremes and high humidity.
- PARLITE 4116 cures by exposure to UV light with maximum absorption within the range of 350-380 nanometers.

Application:

- The adhesive is designed to give the best possible clear bond to glass surfaces, metals, wood and other glass filled materials.
- PARLITE 4116 is recommended for bonding glass furniture, glass assembly, sculpture, glass trophies, decorative pieces, crystal assembly, glass tops and optical items. Ideal for wicking and low bubble formation.



Specifications of PARLITE 4116

Liquid Properties

Composition	Urethane Methacrylate
Appearance	Clear liquid
Viscosity	80 - 120 cps
@25 °C 20-rpm Brookfield	
Specific Gravity	1.20
Flash Point	> 95 °C
Toxicity	Low

PROPERTIES OF CURED ADHESIVE:

Refractive Index	1.509
Tensile Modulus, psi, ASTM D 882	39,975
Tensile Strength, ASTM D882, psi	2, 450
Elongation @ break %	12
Hardness, ASTM D2240 Shore D	70
Tg, ASTM D3418-82, °C	45
Water Absorption, ASTM D570, %	5.8
Temperature Range, °C	-55 - 125
Shrinkage on cure	3.4%
Young Modulus	1.6 x 10 ⁵ psi

PROPERTIES OF CURED ADHESIVE	
Shear Strength, psi, ASTM D4501	

Steel to Glass	3,550
Aluminum to Glass	3,450
Glass to Glass	4,000

UV Curing System

Lamp Type	5" x 5" Flood	3/16" Spot	1" x 6" Focused
Max. Lamp Intensity @ 365 nm	300 mW/cm ²	4000 mW/cm ²	8000 mW/cm ²
Adhesive Absorption Range (nm)	300 - 500	300 - 500	300 - 500
Cure Speed (Sec)			
Glass to Glass Bonding	3	6	<1
Surface Cure Speed	7	7	<1

PRECAUTIONS: This product and the auxiliary materials normally combined with it are capable of producing adverse health effects ranging from minor skin irritation to serious systemic effects. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheets (MSDS) for this and all other products being used are understood by all persons who will work with the material.

Warranty: All products purchased from or supplied by Parson are subject to terms and conditions set out in the contract. Parson warrants only that its product will meet those specifications designated as such herein or in other publications. All other information supplied by Parson is considered accurate but are furnished upon the express condition the customer shall make its own assessment to determine the product's suitability for a particular purpose. Parson makes no other warranty, either express or implied, including those regarding such other information, the data upon which the same is based, or the results to be obtained from the use thereof; that any product shall be merchantable or fit for any particular purpose; or that the use of such other information or product will not infringe any patent.