

3000 Performance Series DATASHEET 3100 Transparent

Product description

The 3100 Transparent is based on a clear solid acrylic adhesive. These double-sided high-performance structural adhesives provide a convenient and simple bonding solution. In many applications, they can be used to replace mechanical fasteners such as rivets, screws, welds or liquid adhesives.

Olympic 3100 Transparent is designed to meet the highest industry standards. Its unique visco-elastic nature ensures a strong bond which can absorb shocks and stress. Thanks to its acrylic chemistry, it provides a highly durable and long-lasting bond for indoor and outdoor applications alike. The adhesives also have an excellent solvent, plasticizer, and moisture resistance.

The 3100 Transparent is based on a solid, clear acrylic adhesive. It is particularly suitable for adhesion to high and medium-surface-energy substrates such as metals (steel, and aluminum), ceramics (glass) and a variety of plastics. It is specially recommended in combination with transparent materials or where a clear bond is required.

Application techniques

To achieve a proper bond it is important to consider the following:

- ✓ Olympic 3100 Transparent is a pressure sensitive adhesive. Firm application pressure improves the bonding strength.
- ✓ Olympic 3100 Transparent adheres to surfaces immediately and the bond strength further improves over time. It reaches maximum bond strength after 72 hours (at room temperature).
- ✓ The time needed to reach maximum bond strength can be reduced significantly by increasing the overall temperature of the bonded surfaces.
- ✓ The bonding surfaces must be clean and dry to achieve full adhesion. Surfaces must be cleaned by using solvents such as isopropyl alcohol, rubbing alcohol, or heptane.
- ✓ The ideal adhesive application temperature range is 20 °C to 35 °C. Initial adhesive application to surfaces at temperatures below 10 °C is not recommended. However, once properly applied, low temperature holding is generally satisfactory.

General physical characteristics

The table below lists the standard physical properties of a roll acrylic adhesive from the 3100 series as it is typically produced. Other thicknesses, types of release liner (i.e. paper) and types of cores (i.e. paper core) are all possible on customer request.

Series	Adhesive			Release liner			Core	
	Color	Adhesive type	Foam type	Material	Thickness (mm)	Color	Size (mm)	Material
3100	T	Acrylic	Solid	PE	0.14		76.20	Polystyrene

T Transparent Red

The PE liner has a differential release value of 1:2. One side is MDPE and the other side is LLDPE. The liner does not contain silicones. We can use other liners, i.e. paper, or your own branded liner on request.

Roll sizes

The 3100 series is typically produced in several different roll sizes. Both smaller and larger rolls are possible.

Series	Thickness (mm)	Standard Length (meter)	Minimum usable width (mm)
3102	0.25	66	900
3104	0.40	66	900
3105	0.50	66	900
3106	0.60	66	900
3108	0.80	66	900
3110	1.00	33	900
3112	1.20	33	900
3115	1.50	33	900

Typical performance characteristics

The adhesive properties of the 3100 series can be characterized by a variety of methods. The typical values for the most commonly used mechanical and adhesive properties are listed in the table below.

Series	Color	Thickness (mm)	Density (gram/liter)	90° Peel Adhesion (N/cm)	Static shear (grams)		Maximum Temperature (°C)	
					At 20 °C	At 90 °C	Short term	Long term
3102	T	0.25	930	22	1000	500	230 °C	150 °C
3104	T	0.40	930	28	1000	500	230 °C	150 °C
3105	T	0.50	930	30	1000	500	230 °C	150 °C
3106	T	0.60	930	33	1000	500	230 °C	150 °C
3108	T	0.80	930	39	1000	500	230 °C	150 °C
3110	T	1.00	930	43	1000	500	230 °C	150 °C
3112	T	1.20	930	44	1000	500	230 °C	150 °C
3115	T	1.50	930	46	1000	500	230 °C	150 °C

T Transparent

This product has excellent solvent and fuel resistancy



90° peel adhesion according to ASTM D3330. Stainless steel substrate, aluminum backing. 72-hour dwell time at room temperature. Listed value is average value force to remove adhesive at room temperature.



Static shear according to ASTM D3654. Stainless steel substrates, 0.5 sq.in. (3.23 sq.cm.), 24-hour dwell time at room temperature. The adhesive will hold its listed weight for 10,000 minutes (approximately seven days) at the listed temperature.

Long term maximum temperature is the temperature at which the adhesive will hold 250 grams under static load (10,000 minutes).

Short term maximum temperature is the temperature to which the adhesive can be exposed for four hours with a static load of 100 grams.

Storage and shelf life

Shelf life is 24 months from the date of manufacture when stored in its original casing between 18 ° - and 22 °C at 50% relative humidity.

Additional information

The technical information, recommendations, and other statements contained in this document are based on Olympic's tests or experience. Many factors beyond Olympic's control and uniquely within user's knowledge and control can affect the use and performance of an Olympic product in a particular application. Given the variety of factors that can affect the use and performance of an Olympic product, the user is solely responsible for evaluating the Olympic product and determining whether it is fit for a particular purpose and suitable for user's method of application.

OLYMPIC 

Keizersveld 30

5803 AN Venray

The Netherlands

Tel: +31 (0) 478 7452 20

Email: info@olympicbonding.com