

Technical Data Sheet

9102 Thermal White – Electrically Insulating Film

Product Description

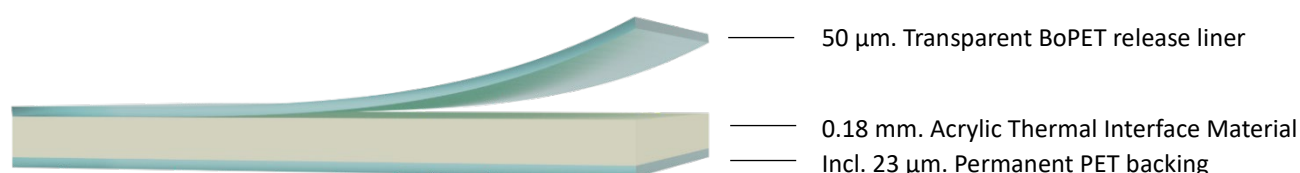
The CCL Olympic 9100 series consists of thermally conductive films that are designed to deliver robust electrical insulation.

This product line features thermally conductive pressure-sensitive adhesives with a high thermal conductivity of 1.5 W/m·K, paired with a thin, puncture-resistant electrically insulating film. Engineered for easy handling, these materials are highly effective in preventing short circuits while ensuring optimal thermal management between (power) electronics and heat-sinks.

Product Features

- 0.2 mm thick
- Thermal conductivity of 1.5 W/m·K
- With permanent PET backing
- Single sided adhesive
- Intrinsic adhesion
- Electric Insulator
- Non-silicone base
- Slitted on request

Product Construction



Technical Information Note: The technical data below cannot be used for specification purposes but should be considered representative or typical only.

Available sizes

Property	Value	Additional information
Standard roll length	66 m.	Other lengths available
Effective roll width	900 mm.	
Core size	3 inch.	HIPS oversized

Typical Product Properties & Test Conditions

Property	Value	Method	Additional information
Total tape thickness	0.2 mm.	ASTM D3652	
Thickness tolerance	15%		
Density	1.8 g/cm ³	Internal method	
Polymer Matrix	Acrylic Adhesive		
Carrier	No carrier		
Color	Thermal White		
Top liner	50 µm. Transparent BoPET release liner		
Bottom liner	23 µm. Permanent PET backing		

Typical Performance Characteristics

Property	Value	Method	Additional information
90° Peel adhesion, initial	9 N/cm	ASTM D3330	Stainless Steel 20 min. dwell time
90° Peel adhesion, final	15 N/cm	ASTM D3330	Stainless Steel 72 hrs. dwell time
Static Shear (20°C)	1500 G	ASTM D3654	
Shore Hardness A	40	ASTM D2240	30 sec. delay
Thermal Conductivity	1.5 W/m·K	ASTM D5470	Adhesive
Thermal Impedance	2.8 K·cm ² /W	Based on ASTM D5470	
Flammability	VTM-0	UL94 V	
DC Breakdown Voltage	>5 kVDC	IEC 60243-2	
Comparative Tracking Index	≥600 V	IEC 60112	
Minimum long term temperature	- 40 °C	Internal Method	
Maximum long term temperature	150 °C	Internal Method	
Maximum short term temperature	230 °C	Internal Method	

Additional information test method

- 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.

Product Applications

9102TW is designed for applications in the electronic industry, including:

- LED assembly
- PCB assembly
- Mounting heat sinks and heat spreaders
- Battery pack assembly

Product code structure

The structure of our product code is as follows:

For example 9102TW:



9102TW 900mm x 33m

Custom Solutions

We can modify all our adhesive and mechanical properties for various solutions, such as peel, adhesion, shear, softness, impact resistance, tack, color, rigidity, flexibility, temperature resistance and even smell to create the solution that meets your exact specifications.

Additional Product Information

Product Application	The application surface should be clean and dry. In order to optimize performance, surface temperatures should be around room temperature.
Storage Conditions & Shelf Life	9102TW Olympic tapes must be stored between 10°C to 30°C, and 0-95% relative humidity. The optimum storage conditions are 22°C and 50% relative humidity and in original sealed packaging. If stored under recommended conditions, then this material will retain its specified performance criteria for 2 years. Performance of tapes is not projected to change even after shelf life expires, but it is recommended that the tapes be used within two years.
Conflict Minerals	Conflict Minerals refers to illegal mining of minerals or other derivatives (Tin, Tantalum, Tungsten and Gold) mined in the provinces of the DRC (Democratic Republic of Congo). CCL-Olympic does not use Tin, Tantalum, Tungsten or Gold, or any derivative thereof, for the production of any of their products. Official statement available on request.
RoHS	RoHS (Restriction of Hazardous Substances). Olympic hereby confirms that our products from series LBL, 1000, 3000, 5000, 7000, 8000 and 9000 comply with EU Directive 2011/65/EU (RoHS recast/RoHS 2), as amended by EU 2015/863. Official statement available on request.
REACH	CCL Olympic hereby confirms that in case of products from the series LBL, 1000, 3000, 5000, 7000, 8000 and 9000 we always observe the prescriptions of REACH (1907/2006/EC) regulation and the product(s) are fully compliant with the relevant regulation. Official statement available on request.
PFAS	At CCL Olympic, we want to reassure our customers that our products are entirely free of PFAS (Per- and Polyfluoroalkyl Substances), underscoring our commitment to product safety and environmental responsibility. Official statement available on request.
ISO	CCL Olympic is ISO9001 and ISO14001 certified.

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