

Materials For Harsh Environments

# Polyonics Bonding Solutions for Electronics, Transportation and Industrial Applications

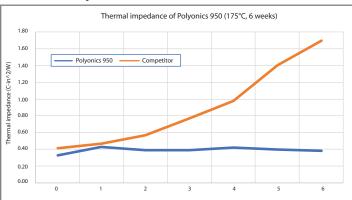
Polyonics adhesive transfer tapes provide unique properties not found in other brands. The tapes are available in both high temperature acrylic and

ultra-high temperature silicone pressure sensitive (PSA) models each in a range of

thicknesses. They also have thinner profiles, offer higher temperature resistances and are available with flame retardant and thermal conductive performances. The tapes are supplied with double liners for ease of handling and die cutting, they provide high bond strengths, are chemical resistant and are ideal for use in high temperature and harsh environment applications.



#### **Thermal Impedance**



Thermal impedance chart above shows superior heat transfer of the Polyonics adhesive after long term temperature exposure compared to the leading competitor.

#### **Temperature**

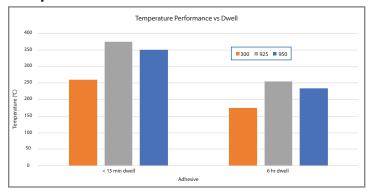
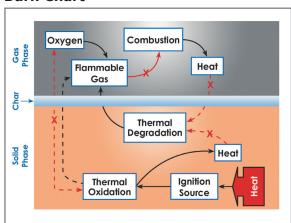


Chart above shows the relative thermal performance of the three Polyonics adhesive families.

#### **Burn Chart**



Polyonics employs resins and polymers that are dimensionally stable and don't generate significant amounts of flammable gasses when exposed to heat and flame. The diagram above depicts how heat contributes to burning and also illustrates the areas (X) where the chemical and physical mechanisms, incorporated in the Polyonics flame retardant adhesive transfer tapes, actively help retard the burn cycle.

#### **Features and Benefits**

- Flame Retardant Options
- Solvent-based Acrylic and Silicone Product Families
- Thermally Conductive Versions
- High Bond Strengths
- High Temperature Resistances
- Thin Conformal Bond Lines

### **Family of Adhesives:**

Adhesive Number	Туре	Adhesive Description & Intended Use				
300	High Temperature Acrylic	Solvent based, acrylic pressure sensitive adhesive that has good chemical durability and high temperature resistance. Intended to be used bonding applications that are exposed to harsh environments.				
925	Ultra High Temperature Silicone	Solvent based, white silicone pressure sensitive adhesive that has ultra high temperature resistance. This adhesive contains nano particles that extend the thermal resistance of the adhesive.				
950	Thermally Conductive Silicone	Solvent based, black silicone pressure sensitive adhesive that has high temperature resistance and good thermal conduction. This adhesive contains thermally conductive fillers and can be used as thermal interface material.				

## **Product Descriptions:**

						Performance Reference				
Product Number	Top Liner	Pressure Sensitive Adhesive	Adhesive Thickness mils (um)	Base Liner	Temperature Resistant (175°C)	Temperature Resistant (>225 °C)	Flame Retardant	Thermally Conductive		
XA-1030	55# Glassine	High Temperature Acrylic 300	1 (25)	1.5 mil PET	Х					
XA-1031	55# Glassine	High Temperature Acrylic 300	1.5 (38)	1.5 mil PET	Х					
XA-1020	2 mil Fluor PET	Ultra High Tempera- ture Silicone 925	1 (25)	2 mil Fluor PET	Х	Х	Х			
XA-1050	2.5 mil Fl-Si Paper	Thermally Conductive Silicone 950	1.5 (38)	2 mil Fl-Si PET	Х	Х	Х	Х		
XA-1051	2.5 mil Fl-Si Paper	Thermally Conductive Silicone 950	3.0 (76)	2 mil Fl-Si PET	Х	Х	Х	Х		
Notes: 1) see technical datasheets for performance data.										

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