



Description:

POLYONICS XL-1600 is a lined clear high gloss over laminating film coated with a permanent pressure sensitive acrylic adhesive this material is not intended to be removed.

Properties:

XL-1600 is designed to provide a clear overlaminates that will protect preprinted images from harsh chemicals, abrasion, and weather conditions without changing the look of any color graphics or images in applications requiring high heat or long term heat exposure.

XL-1600 passes the requirements of **automotive specification GM6121M**

Applications:

- XL-1600 protects valuable information on Caution, Warning, Instructional, Logo/OEM Branding, ID and Asset tracking labels and signs.
- Recommended for use in Automotive, Aerospace, and Electronics where dimensional stability in a label is required.
- XL-1600 is particularly useful as protection for labels used on heavy equipment, Drying and Curing ovens, or equipment being used in Food processing and Metal processing Plants.
- XL-1600 high gloss and clarity enhances look and durability of label.

Special Considerations:

- The surface that you want to label should be clean, dry and free of any surface contamination.
- When you apply the label, you must use firm pressure to increase the physical contact of the adhesive with the surface of the product.
- Pressure sensitive adhesives will provide stronger bonds to a warm surface, as compared to a colder one. The adhesive will 'flow' more readily, increasing the surface area and increasing the adhesion peel strength.
- All values shown are averages and should not be used for specification purposes. Adhesion and tack values have a 15% tolerance allotted to the values stated.
- Test data and test results contained in this document are for general information only and shall not be relied upon by POLYONICS customers for designs and specifications, or be relied on as meeting specified performance criteria.
- Customers desiring to develop specifications or performance criteria for specific product applications should contact Polyonics for further information



Technical Data

Properties	Test Methods	Average Results	
		USA Units	SI Units
Thickness	ASTM D1000		
-Face sheet		0.0020 inch	0.050 mm
-Adhesive		0.0010 inch	0.025 mm
-Total		0.0030 inch	0.075 mm
Adhesion	Polyonics 80313		
Stainless Steel	20 minute dwell	≥ 30 oz/in	N/100 mm
Clarity		Translucent	
Tack	Polyonics 80155	≥ 500 g/in	
Temperature	Short Term	-40 to 536°F (-40 to 280°C)	
	Long Term	150°C 120 minutes no visible effects	
Shelf Life		1 year below 80°F (27°C) and 60% R.H.	

References: ASTM: American Society for Testing and Materials (U.S.A.), SI: International Systems of Units

Durability Testing

Chemical Testing

Proper	Test Method	Test Fluids	Results
Fluid Immersion	GM6121M		
Surfaces	Aluminum, Stainless Steel, TPO, Polypropylene, HDPE	Engine oil	Pass
		Engine Coolant	Pass
		Windshield Washer Fluid	Pass
		Wetting Agent Solution	Pass
		Brake Fluid (DOT 4)	Pass
		Engine oil	Pass

Abrasion

Properties	Test Method	Cycles	Results
Taber Abrasion	GM6121M	100	Pass
		500	Pass

Polyonics Material Compliance


RoHS- Restriction of Hazardous Substances (EU Directive 2002/95/EC)	Limits set forth in Directive 2005/618/EC amending Directive 2002/95/EC
REACH- Registration Evaluation and Authorization of Chemicals (EU Directive 1907/2006/EC)	Limits set forth in Directive 1907/2006/EC Article 7 (2)
Halogens- Restriction use of Halogen (IEC 61249-2-21)	Limits set forth in International Electrochemical Commission

WARRANTY-LIMITATION

Polyonics' products are sold with the understanding that the buyer will test them in actual use and determine for him/herself their adaptability to his/her intended uses. Polyonics warrants to the buyer that its products are free from defects in material and workmanship, but limits its obligation under this warranty to replacement of the products shown to Polyonics' satisfaction to have been defective, provided that the Buyer has complied with the handling, storage and shelf life requirements as specified by Polyonics in applicable materials specifications.

The above warranties extend solely to Buyer and all warranty claims must be made by Buyer. Rework or Replacement shall neither extend nor decrease the original warranty period. The term of all warranty periods shall not exceed thirty (30) days from the date of the original shipment.

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