

Min Thk Flame HAI Elec Imp Str Color (mm) Class HWI 2 80 80 ALL 0.75 V-1 4 120 120 1.0 V-0 3 0 140 140	ABC PLASTIC COMPANY 1000 PLASTICS ROAD, MELVILLE NY 11747-3081 Grade ABC (f1)(f3) Polycarbonate (PC) * TRADENAME*, Recycled, furnished as pellets Min Thk Elame (mm) Kill RI RI RI Color Min Thk Elame (mm) HAI Elec Imp Str ALL 0.75 V-1 4 1 120 120 120 140 140 140 Yet Joine detric Strength (kV/rm): 32 Surface Resistivity (10x ohmsignare): 5 Fundamental Acrossis (D495): 5 Fundamental Acrossis (D495): 5	ABC PLASTIC COMPANY 1000 PLASTICS ROAD, MELVILLE NY 11747-3081 Stresson			-			E12345	
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Guide to the UL Solutions Yellow Card[™]

Understanding the Plastics Recognition Program

What is a UL Solutions Yellow Card[™]?



The UL Yellow Card Plastics Recognition Program is a globally recognized program that provides third-party certification of the quality, safety and performance of plastic materials.

The UL Solutions Yellow Card (or Plastics Recognition Program) is a digital product information card that lists substantial safety and performance-related properties for a polymeric material tested by UL Solutions to appropriate standards. A Yellow Card is automatically issued when polymeric materials receive a UL Recognized Component Mark.

The additional UL Solutions White Card provides information with respect to testing performed to international standards (ISO, IEC).

Certified materials are added to the UL Product iQ® and UL Prospector® databases, which are used by thousands of designers, engineers and suppliers to find providers of recognized materials and components.

Benefits for material manufacturers

The Yellow Card is the ideal recognition for manufacturers of materials or components to promote products and their tested properties to global markets and potential customers.

Benefits for material users

The Yellow Card provides confidence that a material will continue to meet requirements for specific applications. Using UL Solutions tested and certified components — identifiable through the UL Recognized Component Mark on the Yellow Card — can also save time and money. By eliminating the need for further material testing, it can shorten the path to certain certifications.

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Datasheet view of a UL Solutions Yellow Card on **iq.ulprospector.com**

Reading the Yellow Card[™]



Click a number to learn more

Compo	onent – Plastics						E12345
	PLASTIC COMPANY PLASTICS ROAD, MELVILLE	E NY 11747-3081					
	e ABC (f1)(f3) arbonate (PC) "TRADENAME"	, Recycled, furnished as	pellets		[
	<u>Min Thk</u>	<u>Flame</u>			<u>RTI</u>	<u>RTI</u>	<u>RTI</u>
<u>Color</u>	<u>(mm)</u>	<u>Class</u>	<u>HWI</u>	<u>HAI</u>	Elec	<u>Imp</u>	<u>Str</u>
ALL	0.75	V-1	4	2	80	80	80
	1.0	V-0	3	1	120	120	120
	3.0	V-0	2	0	140	140	140
Ī	Comparative Tr	acking Index (CTI):	0		Inclined	Plane Tracking (IPT):	60 min at 1kV
	Dielectric	Strength (kV/mm):	32		Volume Res	sistivity (10x ohm-cm):	14
	High-Voltage Arc Trac	cking Rate (HVTR):	0				
	Dimen	sional Stability (%):	0.0	High	Nolt, Low Cur	rent Arc Resis (D495):	5

(f1) - Suitable for outdoor use with respect to exposure to Ultraviolet Light, Water Exposure and Immersion in accordance with UL 746C $\,$

(f3) - Suitable for use with respect to exposure to detergents, bleach and solutions typically used in fluid containing parts of laundry equipment, in accordance with UL 2157

RoHS 2011/65/EU & 2015/863 Compliant Material (color: NC,BK) view certificate UL 746H Non-Halogenated Material (color: ALL)

"Grade ABC" contains an average of 30% post-consumer recycled content view SPOT® certificate

ANSI/UL 94 small-scale test data does not pertain to building materials, furnishings and related contents. ANSI/UL 94 small-scale test data is intended solely for determining the flammability of plastic materials used in the components and parts of end-product devices and appliances, where the acceptability of the combination is determined by UL.

Report Date: 2014-07-15 Last Revised: 2017-02-08

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Example Yellow Card - other information and ratings may be shown.



Reading the White Card™





IEC Glow-Wire Flammability/ IEC Glow-Wire Ignition



IEC Comparative Tracking Index

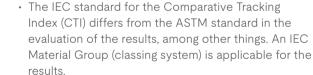


ISO Tensile Strength

The White Card provides information regarding testing performed to international standards (ISO, IEC).

Test results include:

- IEC test method based flammability rating, which is harmonized with UL 94 flammability testing.
- The Glow-Wire Test measures the materials ability of resistance to ignition as well as ability to extinguish once ignition occurs. The Glow-Wire Flammability Index (GWFI) is the temperature at which the material will extinguish within 30 seconds after the glow wire tip removal. The Glow-Wire Ignition Temperature (GWIT) is the temperature at which ignition occurs.



- The ball pressure temperature and the heat defelection are both short-term thermal softening evaluation methods.
- Other mechanical testing such as tensile strength, flexural strength and three different impact tests.

Test Name	Test Method	Units	Thk (mm)	Value
Flammability	IEC 60695-11-10	Class (color)	0.4	V-0 (BK)
			0.75	V-0 (BK)
			1.5	V-0 (BK)
			3.0	V-0 (BK)
Glow-Wire Flammability (GWFI)	IEC 60695-2-12	°C	0.4	960
			0.75	960
			1.5	960
			3.0	960
Glow-Wire Ignition (GWIT)	IEC 60695-2-13	°C	0.4	960
			0.75	960
			1.5	700
			3.0	700
IEC Comparative Tracking Index	IEC 60112	Volts (Max)	3.0	CTI600
		Material Group		I
IEC Ball Pressure	IEC 60695-10-2	°C	3.0	130
ISO Heat Deflection (1.80 MPa)	ISO 75-2	°C	3.0	124
ISO Tensile Strength	ISO 527-2	MPa	3.0	60
ISO Flexural Strength	ISO 178	MPa	3.0	55
ISO Tensile Impact	ISO 8256	kJ/m ²	3.0	40
ISO Izod Impact	ISO 180	kJ/m ²	3.0	70
ISO Charpy Impact	ISO 179-2	kJ/m ²	3.0	9.0 C ALSO CERTIFIED TO

Example White Card - other information and ratings may be shown

Overview of UL Standards



UL 94 Tests for Flammability of Plastic Materials for Parts in Devices and Appliances	UL 746A Standard for Polymeric Materials – Short Term Property Evaluations, including: • HWI – Hot Wire Ignition • HAI – High Arc Ignition • Short term thickness independent properties	UL 746B Standard for Polymeric Materials – Long Term Property Evaluations, including: • RTI – Relative Thermal Index	UL 746C Standard for Polymeric Materials – Use in Electrical Equipment Evaluations, including: • Outdoor-Use Suitability	UL 746D Standard for Polymeric Materials – Fabricated Parts, including: • Evaluations of Recycled Materials
UL 746H	UL 746R	UL 2809	UL Solutions	
Outline of Investigation for	Outline of Investigation for	Environmental Claim Validation	Follow-Up Services	

Non-Halogenated Materials

Restricted Use Substances in Polymeric Materials

• RoHS

Procedure (ECVP) for Recycled Content



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