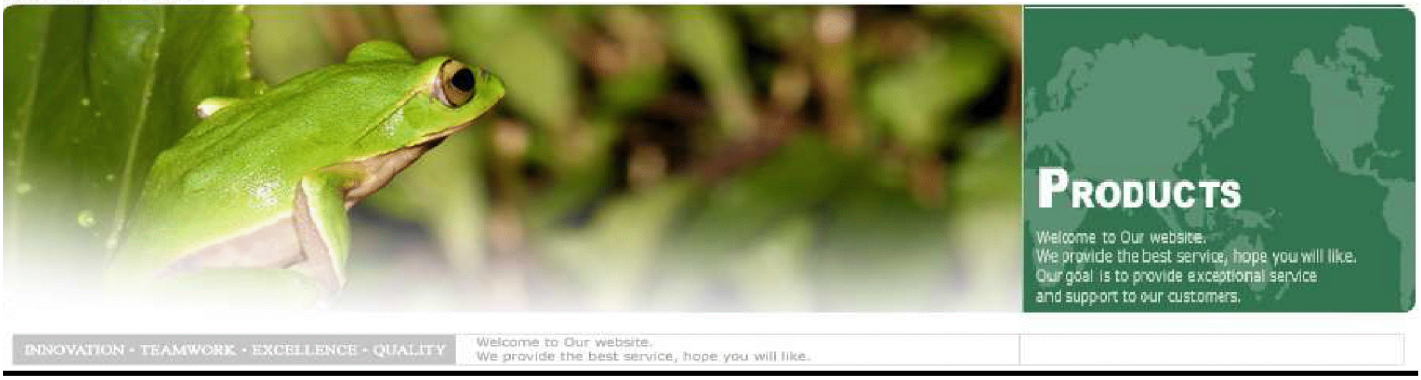

IT-140BS/IT-140TC

Medium Tg Tetra-Functional Epoxy Resin and Dicy-Cured Laminate & Prepreg

IT-140 is a medium Tg (>135℃ by DSC) trtra-functional epoxy with AOI and UV blocking resin system. Dicy cured and 94 V-0. Suitable for consumer application.

Key Features ==========

Resin Technology

Industrial standard material with medium Tg (135℃ by DSC) tetra-functional epoxy resin and dicy cured.

Good Thermal Reliability

RoHS compliant and suitable for thermal reliability needs. High peel strength value and better reliability compared with the similar resin system of competitor's.

Friendly Processing and CAF Resistance

Friendly to PCB process that users can easily handle the process by current equipment and chemical.

AOI and UV Blocking

It's good for AOI and UV blocking of PCB imaging inspection process.

Available in Variety of Constructions

Available in a various of constructions, copper weights and glass styles, including standard(HTE), RTF and VLP copper foil.

Applications

PC and Notebook

Memory Module

Game Player

Consumer and Multilayer PCB

Industrial Approval

UL 94 V-0

IPC-4101C Spec / 21

RoHS Compliant

IPC-4101A Spec / 21

LAMINATE(IT-140TC)

Property	Thickness<0.50 mm [0.0197 in]		Thickness≧0.50 mm [0.0197 in]		Units	Test Method
	Typical Value	Spec	Typical Value	Spec	Metric (English)	IPC-TM-650 (or as noted)
Peel Strength, minimum A. Low profile copper foil and very low profile copper foil - all copper weights > 17µm [0.669 mil] B. Standard profile copper foil 1. After Thermal Stress 2. At 125°C [257 F] 3. After Process Solutions	0.96 (5.5) 1.75 (10) 1.66 (9.5) 1.49 (8.5)	0.70 (4.0) 0.80 (4.57) 0.70 (4.00) 0.55 (3.14)	0.96 (5.5) 1.93 (11.0) 1.66 (9.5) 1.49 (8.5)	0.70 (4.0) 1.05 (6.00) 0.70 (4.00) 0.80 (4.57)	N/mm (lb/inch)	2.4.8 2.4.8.2 2.4.8.3
Volume Resistivity, minimum A. C-96/35/90 B. After moisture resistance C. At elevated temperature E-24/125	$5x10^{10}$ -- $5x10^{10}$	10^{6} -- 10^{3}	-- $5x10^{10}$ $5x10^{10}$	-- 10^{4} 10^{3}	MΩ-cm	2.5.17.1
Surface Resistivity, minimum A. C-96/35/90 B. After moisture resistance C. At elevated temperature E-24/125	$3.5x10^{10}$ -- $6x10^{10}$	10^{4} -- 10^{3}	-- $3.5x10^{10}$ $6x10^{10}$	-- 10^{4} 10^{3}	MΩ	2.5.17.1
Moisture Absorption, maximum	0.30	--	0.1	0.8	%	2.6.2.1
Dielectric Breakdown, minimum	--	--	60	40	kV	2.5.6
Permittivity (Dk, 50% resin content) (Laminate & Laminated Prepreg) A. 1MHz	4.6	5.4	4.6	5.4	--	2.5.5.9
Loss Tangent (Df, 50% resin content) (Laminate & Laminated Prepreg) A. 1MHz	0.016	0.035	0.016	0.035	--	2.5.5.9
Flexural Strength, minimum A. Length direction B. Cross direction 	-- -- -- --	-- -- -- --	500-530 (72,500-76,850) 430-460 (62,350-66,700)	415 (60,190) 345 (50,140)	N/mm^2 (lb/in^2)	2.4.4
Arc Resistance, minimum	120	60	120	60	s	2.5.1
Thermal Stress 10 s at 288°C [550.4F],minimum A. Unetched B. Etched	Pass Pass	Pass Visual Pass Visual	Pass Pass	Pass Visual Pass Visual	Rating	2.4.13.1
Electric Strength, minimum (Laminate & Laminated Prepreg)	45	30	--	--	kV/mm	2.5.6.2
Flammability, (Laminate & Laminated Prepreg)	V-0	V-0	V-0	V-0	Rating	UL94
Glass Transition Temperature(DSC)	140	135 minimum	140	135 minimum	˚C	2.4.25
Decomposition Temperature	--	--	305	--	˚C	2.4.24.6 (5% wt loss)
Z-Axis CTE A. Alpha 1 B. Alpha 2 C. 50 to 260 Degrees C	 -- -- --	 -- -- --	 55 290 4.2	 -- -- --	 ppm/˚C ppm/˚C %	2.4.24
Thermal Resistance A. T260 B. T288	 -- --	 -- --	 15 2	 -- --	 Minutes Minutes	2.4.24.1
CAF Resistance	--	--	Pass	AABUS	Pass/Fail	2.6.25