

IPC-4101 /20 UL - File Number E41625

The A11 family of no-flow prepregs consists of proprietary resin systems specifically formulated for optimal performance in bonding applications requiring minimal resin flow and consistency in lamination.

#### PRODUCT FEATURES

Industry Recognition

- UL File Number: E41625
- RoHS Compliant

Processing Advantages

- Complete encapsulation of non-planar surfaces
- Cure and form bond at low temperatures
- Allows for lamination at non-uniform pressures
- Adhesion to wide range of materials
- Flex films – (Mylar®, Kapton®, etc.)
- Treated or untreated copper
- Plated metals (tin, solder, nickel, etc.)
- Conventional laminate surfaces

#### PRODUCT AVAILABILITY

Standard Material Offering: Prepreg

- Roll or panel form
- Tooling of prepreg panels

Glass Fabric Availability

- E-glass

A11 products bring the fabricator specific thermal characteristics appropriate for use in heat sink bonding, die cavity board (direct chip attachment) and multilayer rigid-flex applications.

#### PRODUCT ATTRIBUTES



#### ORDERING INFORMATION:

Contact your local sales representative or contact [info@isola-group.com](mailto:info@isola-group.com) for further information.

#### Isola Group

6565 West Frye Road Chandler,  
AZ 85226 Phone: 480-893-6527  
Fax: 480-893-1409

#### Isola Asia Pacific

(Hong Kong) Ltd. 12/F,  
Kin Sang Commercial Centre,  
49 King Yip Street, Kwun Tong,  
Kowloon,  
Hong Kong Phone: 852-2418-1318  
Fax: 852-2418-1533

#### Isola GmbH

Isola Strasse 2 D-52348 Düren,  
Germany Phone: 49-2421-8080  
Fax: 49-2421-808164

# Typical Values Table

Property		Typical Value	Units	Test Method
			Metric (English)	IPC-TM-650 (or as noted)
Pressed Thickness	A. 104	2.0	mm (mil)	—
	B. 1080	3.7		
Resin Content	A. 104	75	%	2.3.16.2
	B. 1080	65		
Resin Flow Testing	A. 104	2	—	2.3.17
	B. 1080			
Modified Circle Flow	A. 104	0.010 - 0.100	—	—
	B. 1080			
Glass Transition Temperature (Tg) by DSC		100	°C	2.4.25C
Decomposition Temperature (Td) by TGA @ 5% weight loss		300	°C	2.4.24.6
Cure Temperature Recommended for Full Cure		171	—	—
Min. for Functional Bonding		149	—	—
Z-Axis CTE		80	ppm/°C	2.4.24C
X/Y-Axis CTE		18/16	ppm/°C	2.4.24C
Thermal Conductivity		0.25	W/m-K	ASTM E1952
Dk, Permittivity	@ 1 GHz	4.5	—	2.5.5.9
Df, Loss Tangent	@ 1 GHz	0.033	—	2.5.5.9
Dielectric Breakdown		80	kV	2.5.6B
Peel Strength	1 oz. EDC foil	9.0	N/mm (lb/inch)	2.4.8C
Flammability (Laminate & laminated prepreg)		HB	Rating	UL 94

## NOTES

Visit our site <http://www.isola-group.com> for more details.

Revisions:

A:Initial Release

B:Corrected glass type PT,RC,RF 1080 to 108

Isola, the Isola logo, Astra, Chronon, GETEK, I-Fill, IsoDesign, IsoStack, I-Speed, I-Tera, Polyclad, Stratus, TerraGreen, and The Base for Innovation are registered trademarks or trademarks of ISOLA USA Corp. in the United States and in other countries. Copyright © 2021 Isola Group. All rights reserved.