



# A11

## No-Flo® Specialty Prepreg

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.

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

No / Low Flow Prepreg

#### ORDERING INFORMATION:

Contact your local sales representative or visit [www.isola-group.com](http://www.isola-group.com) for further information.

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No / Low Flow Prepreg

## Data Sheet

Tg 100°C

Td 300°C

Dk 4.50

Df 0.033

IPC-4101 - / 20

UL - File Number E41625

Last Updated March 26, 2019  
Revision No: B

### 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 Typical Values

Last Updated Mar 26, 2019

Property		Typical Value	Units	Test Method
			Metric (English)	IPC-TM-650 (or as noted)
Pressed Thickness	A. 104	2.0	mm (mil)	
	B. 108	3.7		
Resin Content	A. 104	75	%	2.3.16.2
	B. 108	65		
Resin Flow Testing	A. 104	2	—	2.3.17
	B. 108			
Modified Circle Flow	A. 104	0.010 - 0.100		
	B. 108			
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/mK	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

The data, while believed to be accurate and based on analytical methods considered to be reliable, is for information purposes only. Any sales of these products will be governed by the terms and conditions of the agreement under which they are sold.

<https://www.isola-group.com/products/all-printed-circuit-materials/a11/>

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## NOTE

Revisions:

A-Initial Release

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