

R/flex JADE[®] A Series

Halogen-Free Adhesive System

Flexible Coverlayer

R/flex JADE[®] A series flexible circuit materials are the next generation of the industry-leading R/flex CRYSTAL[®] epoxy adhesive system. Environmentally friendly, these materials are halogen-free, lead-free, and flame retardant. They allow our customers to meet the increasing environmental requirements imposed upon commercial applications worldwide without compromising the performance required in today's demanding flexible circuit designs.

Product Features & Benefits:

- Green and halogen-free epoxy system
- Superior thermal stability allows R/flex JADE A series material to withstand multiple passes through lead-free soldering
- Outstanding squeeze-out control, excellent dimensional stability, and superb peel strength improve process yields and reduce fabrication costs
- Inherent flame retardant performance - passes UL 94 V-O flame testing
- Transparent adhesive system facilitates optical inspection

Applications:

R/flex JADE A coverlayer is formulated to accommodate the most technically demanding circuit applications: hard disk drives, cellular phones, laptop computers, personal digital assistants, semiconductor packages, and many others.

Typical Values

R/flex JADE A - Coverlayer

Property	Test	Details	Units	Coverfilm
				A500C1H0 1.0 mil adh/0.5 mil PI
Mechanical Properties				
Peel Strength	IPC-TM-650 method 2.4.9	Method A (as received) to Brite Cu	kN/m	1.7
		Method A (as received) to Treated Cu		2.1
		After solder float to Brite Cu		1.5
		After solder float to Treated Cu		2.2
Solder Resistance	IPC-TM-650 method 2.4.13	288°C, 10 sec.		PASS
Dimensional Stability	IPC-TM-650 method 2.2.4	Method A	MD	-0.12
			TD	0.007

The information in this data sheet is intended to assist you in designing with Rogers' circuit materials. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that any results shown in this data sheet will be achieved by a user for a particular purpose. The user is responsible for determining the suitability of Rogers' circuit materials for each application.

Environmental Standards:

R/flex JADE A series products contain no cadmium, lead, mercury, hexavalent chromium compounds, PBBs, PBDEs and meet or exceed the following industry standards:

- IEC and JPCA halogen-free requirements
- RoHS directives

**Part Number Description:**

Coverlayer (C) Designations	R/flex® A X00C X X 0
Polyimide Type _____	
Adhesive thickness, mil (µm) _____	
F=0.50 (12.5), J=0.70 (17), 1=1 (25), S=1.4 (35)	
Polyimide Film Thickness, mil (mm) _____	
H=0.5 (12.5), 1=1 (25)	

Available Configurations:

Many available configurations are not standard. Please check with your Rogers' representative.

Material Construction Information:

R/flex JADE A coverlayer products are constructed with a base dielectric polyimide of Kaneka APICAL® NP film and a standard release sheet of opaque polypropylene encapsulated white paper carrier. Bonding films are manufactured with polypropylene encapsulated paper and a polyester release sheet.

All R/flex® flexible circuit materials are manufactured under rigorous process control where process capabilities are continuously monitored for all critical properties such as peel strength and dimensional stability.

Storage Conditions:

R/flex JADE A coverlayer uses B-staged adhesive systems that will retain their original properties for a minimum of six months from the date of manufacture when stored at or below 4°-7°C (40°-45°F) in their original packaging.

Applicable Specifications:

Coverlayer: IPC-4203 / 2

CONTACT INFORMATION:

USA:	Rogers Advanced Circuit Materials, ISO 9002 Certified	Tel: 480-961-1382	Fax: 480-917-5256
Belgium:	Rogers BVBA. - Gent	Tel: +32-9-2353611	Fax: +32-9-2353658
Japan:	Rogers Japan Inc.	Tel: 81-3-5200-2700	Fax: 81-3-5200-0571
Taiwan:	Rogers Taiwan Inc.	Tel: 886-2-86609056	Fax: 886-2-86609057
Korea:	Rogers Korea Inc.	Tel: 82-31-716-6112	Fax: 82-31-716-6208
Singapore:	Rogers Technologies Singapore Inc.	Tel: 65-747-3521	Fax: 65-747-7425
China:	Rogers (Shanghai) International Trading Co. Ltd.	Tel: 86-21 62175599	Fax: 86-21-62677913

The information in this data sheet is intended to assist you in designing with Rogers' circuit materials. It is not intended to and does not create any warranties, express or implied, including any warranty of merchantability or fitness for a particular purpose or that any results shown in this data sheet will be achieved by a user for a particular purpose. The user is responsible for determining the suitability of Rogers' circuit materials for each application.

The world runs better with Rogers., the Rogers' logo, R/flex, R/flex CRYSTAL and R/flex JADE are licensed trademarks of Rogers Corporation.

APICAL is a registered trademark of Kaneka Films.

©2007, 2009 Rogers Corporation, Printed in U.S.A., All rights reserved.

Revised 06/2009 0867-0609-0.5CC **Publication#:14-40**