PRODUCT LIST

Series	Thickness (μm)	Application	Features
HD-200	38,40,48	Laser direct imaging Outer layer acid etching Outer layer electroplating & alkaline etching	High photosensitivity Excellent tenting property High adhesion & resolution
HD-200L	24,28	Laser direct imaging Acid etching	Excellent adhesion & resolution Excellent resistance to developing
HD-200LA	24,26,28,38	Laser direct imaging Acid etching	Excellent stripping property aiming at roughed substrate
HD-600	20,24,27	Laser direct imaging Inner layer acid etching	Excellent adhesion & resolution High photosensitivity
HR-6100	28,38,43	Inner & Outer layer acid etching Outer layer electroplating & alkaline etching	High resolution Excellent tenting & plating resistance
HR-6100M	38,43	Acid etching Special for hole tenting	Outstanding hole tenting property
HR-6100L	38,43	Inner & Outer layer acid etching Outer layer electroplating & alkaline etching	Excellent resistance to acid etching for thick copper substrate
HR-6000	20,23,28	Acid etching	Aqueous Excellent adhesion & resolution
HW-8100	20,24	Acid etching Flexible fine line	Outstanding resolution & adhesion Suitable for wet lamination
HC-600	50	Special for selective ENIG Thick gold plating	Excellent adhesion & conformance & plating resistance Less precipitate
HG-9000	24,29,38 10-60 μm customized	Suitable for PKG boards MSAP and SAP process	Excellent resolution & adhesion Excellent stripping effect

HD-200 Direct Imaging Series Photoresist Dry Film

Application

HD-200 DI Series	Model	HD-240	HD-240F	HD-250
	Thickness (μm)	38±2	40±2	48±2
Application	Fine line			
	Acid etch	Y	Y	Y
	Alkaline etch	Y	Y	Y
	Plating	Y	Y	Y
	Tenting	Y	Y	Y
Features		High photosensitivity Excellent tenting property, high adhesion & resolution		

Characteristics

Characteristics of HD-200 DI Series				
Item		HD-240	HD-240F	HD-250
Condition	Exposure equipment	Orbotech（paragou-8800hi)		
	Stouffer Step Sensitivity	41ST exposure ruler		
	Resolution test pattern	LIWI-TEST-METRIC		
	Adhesion test pattern	LIWI-TEST-METRIC		
Exposure	Exposure energy (mJ/cm^2)	23	23	26
	Sensitivity/41ST	20±2	20±2	20±2
Resolution	Min Space (μm)	35	40	45
Adhesion	Min Line (μm)	30	35	40
Lamination	Max depth (μm)	18±5	20±5	25±5
Developing	Developing time (sec)	38±5	45±5	55±5
Stripping	Stripping time (sec) (3%NaOH, 50°C)	42±3	48±3	60±5
	Stripped flake size (mm)	≤50	≤45	≤35
Tenting	Tenting (Ø mm)	7	8	9

Note: The figures above obtained from laboratory are for reference only.

2022B0

HD-200L Direct Imaging Series Photoresist Dry Film

Application

HD-200L DI Series	Model	HD-225L	HD-233L
	Thickness (μm)	24±2	28±2
Application	Fine line	Y	Y
	Acid etch	Y	Y
	Alkaline etch	Y	Y
	Plating	Y	Y
	Tenting		Y
Features		Excellent adhesion & resolution Excellent resistance to developing	

Characteristics

Characteristics of HD-200L DI Series			
Item		HD-225L	HD-233L
Condition	Exposure equipment	Orbotech (paragou-8800hi)	
	Stouffer Step Sensitivity	41ST exposure ruler	
	Resolution test pattern	LIWI-TEST-METRIC	
	Adhesion test pattern	LIWI-TEST-METRIC	
Exposure	Exposure energy (mJ/cm²)	15	16
	Sensitivity/41ST	18±2	18±2
Resolution	Min Space (μm)	25	30
Adhesion	Min Line (μm)	20	25
Lamination	Max depth (μm)	10±5	13±5
Developing	Developing time (sec)	25±3	29±3
Stripping	Stripping time (sec) (3%NaOH, 50℃)	21±3	25±3
	Stripped flake size (mm)	≤60	≤50
Tenting	Tenting (Ø mm)	/	4

Note: The figures above obtained from laboratory are for reference only.

2022B0

HD-200LA Direct Imaging Series Photoresist Dry Film

Application

HD-200LA DI Series	Model	HD-225LA	HD-227LA	HD-233LA	HD-238LA
	Thickness (μm)	24±2	26±2	28±2	38±2
Application	Fine line	Y	Y	Y	
	Acid etch	Y	Y	Y	Y
	Alkaline etch				Y
	Plating				Y
	Tenting		Y	Y	Y
Features		Excellent stripping property aiming at roughed substrate			

Characteristics

Characteristics of HD-200LA DI Series

Item		HD-225LA	HD-227LA	HD-233LA	HD-238LA
Condition	Exposure equipment	Orbotech Nuvogo80F			
	Stouffer Step Sensitivity	41ST exposure ruler			
	Resolution test pattern	CFMEE-RESOLUTION			
	Adhesion test pattern	CFMEE-RESOLUTION			
Exposure	Exposure energy (mJ/cm²)	16	16	17	18
	Sensitivity/41ST	18±2	18±2	18±2	18±2
Resolution	Min Space (μm)	25	25	30	35
Adhesion	Min Line (μm)	25	25	25	30
Lamination	Max depth (μm)	10±5	13±5	15±5	20±5
Developing	Developing time (sec)	25±5	27±5	29±5	36±5
Stripping	Stripping time (sec) (3%NaOH, 50°C)	27±5	30±5	35±5	45±5
	Stripped flake size (mm)	≤60	≤55	≤50	≤40
Tenting	Tenting (Ø mm)	/	3	4	5

Note: The figures above obtained from laboratory are for reference only.

2022B0

HD-600 Direct Imaging Series Photoresist Dry Film

Application

HD-600 DI Series	Model	HD-620	HD-625	HD-627
	Thickness (μm)	20±2	24±2	27±2
Application	Fine line	Y	Y	Y
	Acid etch	Y	Y	Y
	Alkaline etch			
	Plating			
	Tenting			Y
Features		Outstanding resolution and adhesion, high photosensitivity		

Characteristics

Characteristics of HD-600 DI Series				
Item		HD-620	HD-625	HD-627
Condition	Exposure equipment	Orbotech Nuvogo80F		
	Stouffer Step Sensitivity	41ST exposure ruler		
	Resolution test pattern	CFMEE-RESOLUTION		
	Adhesion test pattern	CFMEE-RESOLUTION		
Exposure	Exposure energy (mJ/cm²)	15	15	16
	Sensitivity/41ST	18±2	18±2	18±2
Resolution	Min Space (μm)	20	25	25
Adhesion	Min Line (μm)	20	20	25
Lamination	Max depth (μm)	6±3	9±5	12±5
Developing	Developing time (sec)	28±5	35±5	40±5
Stripping	Stripping time (sec) (3%NaOH, 50°C)	30±5	36±5	39±5
	Stripped flake size (mm)	≤60	≤60	≤50
Tenting	Tenting (Ø mm)	/	/	3

Note: The figures above obtained from laboratory are for reference only.

HR-6100 Series Photoresist Dry Film

Application

HR-6100 Series	Model	HR-6130	HR-6140	HR-6145
	Thickness (μm)	28±2	38±2	43±2
Application	Fine line	Y		
	Acid etch	Y	Y	Y
	Alkaline etch		Y	Y
	Plating		Y	Y
	Tenting	Y	Y	Y
Features		High resolution, excellent tenting & plating resistance		

Characteristics

Characteristics of HR-6100 Series				
Item		HR-6130	HR-6140	HR-6145
Condition	Exposure equipment	CBT E2100-5KAC		
	Stouffer Step Sensitivity	41ST exposure ruler		
	Resolution test pattern	LIWI-TEST-METRIC		
	Adhesion test pattern	LIWI-TEST-METRIC		
Exposure	Exposure energy (mJ/cm^2)	75	90	95
	Sensitivity/41ST	18±2	20±2	20±2
Resolution	Min Space (um)	30	35	40
Adhesion	Min Line (μm)	25	30	35
Lamination	Max depth (um)	13±5	20±5	23±5
Developing	Developing time (sec)	26±3	43±3	52±3
Stripping	Stripping time (sec) (3%NaOH, 50°C)	26±3	45±3	52±3
	Stripped flake size (mm)	≤60	≤45	≤40
Tenting	Tenting (Ø mm)	4	6	7

Note: The figures above obtained from laboratory are for reference only.

2022B0

HR-6100M Series Photoresist Dry Film

Application

HR-6100M Series	Model	HR-6140M	HR-6145M
	Thickness (μm)	38±2	43±2
Application	Fine line		
	Acid etch	Y	Y
	Alkaline etch	Y	Y
	Plating	Y	Y
	Tenting	Y	Y
Features		Outstanding hole tenting property	

Characteristics

Characteristics of HR-6100M Series			
Item		HR-6140M	HR-6145M
Condition	Exposure equipment	ORC(EXP-2500)	
	Stouffer Step Sensitivity	41ST exposure ruler	
	Resolution test pattern	Ary-22-02-101	
	Adhesion test pattern	Ary-22-02-101	
Exposure	Exposure energy (mJ/cm²)	80	85
	Sensitivity/41ST	20±2	20±2
Resolution	Min Space (um)	40	45
Adhesion	Min Line (μm)	40	45
Lamination	Max depth (um)	20±5	20±5
Developing	Developing time (sec)	45±3	55±3
Stripping	Stripping time (sec) (3%NaOH, 50°C)	53±3	60±5
	Stripped flake size (mm)	≤45	≤40
Tenting	Tenting (Ø mm)	8	9

Note: The figures above obtained from laboratory are for reference only.

HR-6000 Series Photoresist Dry Film

Application

HR-6000 Series	Model	HR6020	HR6025	HR6030
	Thickness (μm)	20±2	23±2	28±2
Application	Fine line	Y	Y	Y
	Acid etch	Y	Y	Y
	Alkaline etch			
	Plating			
	Tenting		Y	Y
Features		Aqueous, excellent adhesion & resolution		

Characteristics

Characteristics of HR-6000 Series				
Item		HR-6020	HR-6025	HR-6030
Condition	Exposure equipment	CBT E2100-5KAC		
	Stouffer Step Sensitivity	41ST exposure ruler		
	Resolution test pattern	LIWI-TEST-METRIC		
	Adhesion test pattern	LIWI-TEST-METRIC		
Exposure	Exposure energy (mJ/cm^2)	70	70	75
	Sensitivity/41ST	18±2	18±2	18±2
Resolution	Min Space (μm)	20	25	30
Adhesion	Min Line (μm)	15	20	25
Lamination	Max depth (μm)	8±5	10±5	13±5
Developing	Developing time (sec)	16±3	22±3	26±3
Stripping	Stripping time (sec) (3%NaOH, 50℃)	18±3	24±3	26±3
	Stripped flake size (mm)	⩽80	⩽70	⩽60
Tenting	Tenting (Ø mm)	/	3	4

Note: The figures above obtained from laboratory are for reference only.

HR-6100L Series Photoresist Dry Film

Application

HR-6100L Series	Model	HR-6140L	HR-6145L
	Thickness (μm)	38±2	43±2
Application	Fine line		
	Acid etch		
	Alkaline etch	Y	Y
	Plating	Y	Y
	Tenting	Y	Y
Features		Excellent resistance to acid etching for thick copper substrate	

Characteristics

Characteristics of HR-6100L Series			
Item		HR-6140L	HR-6145L
Condition	Exposure equipment	ORC(EXP-2500)	
	Stouffer Step Sensitivity	41ST exposure ruler	
	Resolution test pattern	Ary-22-02-101	
	Adhesion test pattern	Ary-22-02-101	
Exposure	Exposure energy (mJ/cm^2)	80	90
	Sensitivity/41ST	20±2	20±2
Resolution	Min Space (μm)	40	45
Adhesion	Min Line (μm)	40	40
Lamination	Max depth (μm)	20±3	22±5
Developing	Developing time (sec)	45±3	53±5
Stripping	Stripping time (sec) (3%NaOH, 50°C)	45±5	55±5
	Stripped flake size (mm)	≤40	≤35
Tenting	Tenting (Ø mm)	5	6

Note: The figures above obtained from laboratory are for reference only.

2022B0

HW-8100 Series Photoresist Dry Film

Application

HW-8100 Series	Model	HW-8120	HW-8125
	Thickness (μm)	20±2	24±2
Application	Fine line	Y	Y
	Acid etch	Y	Y
	Alkaline etch		
	Plating		
	Tenting		
Features		Outstanding adhesion & resolution. Suitable for wet lamination	

Characteristics

Characteristics of HW-8100 Series			
Item		HW-8120	HW-8125
Condition	Exposure equipment	Optiray (RS-052AM)	
	Stouffer Step Sensitivity	41ST exposure ruler	
	Resolution test pattern	LIWI-TEST-METRIC	
	Adhesion test pattern	LIWI-TEST-METRIC	
Exposure	Exposure energy (mJ/cm²)	75	80
	Sensitivity/41ST	18±2	18±2
Resolution	Min Space (μm)	15	20
Adhesion	Min Line (μm)	15	15
Lamination	Max depth (μm)	7±3	10±3
Developing	Developing time (sec)	20±3	32±3
Stripping	Stripping time (sec) (3%NaOH, 50°C)	24±3	35±3
	Stripped flake size (mm)	≤50	≤40
Tenting	Tenting (Ø mm)	/	2

Note: The figures above obtained from laboratory are for reference only.

2022B0

HC-600 Series Dry Film for Selective ENIG

Application

- ◆ Special for use in electroless Ni/Au, with strong adhesion and excellent resistance to plating, less precipitate.
- ◆ Applicable for thick gold plating.

Characteristics

Characteristics of HC-600			
Item			HC-650
Condition	Exposure equipment		CBT E2100-5KAC
	Stouffer Step Sensitivity		21ST exposure ruler
	Resolution test pattern		LIWI-TEST-METRIC
	Adhesion test pattern		LIWI-TEST-METRIC
Exposure	Exposure energy (mJ/cm^2)		180
	Sensitivity/21ST		10±1
Resolution	Min Space (um)		50
Adhesion	Min Line (μm)		45
Lamination	Max depth (um)		25±5
Developing	Developing time (sec)		60±5
Stripping	Stripping time (sec)	(3%NaOH, 50°C)	130±20
		(5%NaOH, 50°C)	90±20
	Stripped flake size (mm)		≤30
Tenting	Tenting (Ø mm)		8

HG-9000 Series Dry Film for PKG Boards

Application

- Suitable for packaging boards, MSAP and SAP process.
- The thickness of the film could be customized accordingly.
- Excellent resolution and adhesion.
- Excellent resistance to electroplating. Low contamination.

Characteristics

Characteristics of HG-9000 Series		
Item		HG-9025
Condition	Exposure equipment	Orbotech(Ultra 200)
	Stouffer Step Sensitivity	41ST exposure ruler
	Resolution test pattern	LIWI-TEST-METRIC
	Adhesion test pattern	LIWI-TEST-METRIC
Exposure	Exposure energy (mJ/cm²)	50
	Sensitivity/41ST	18±2
Resolution	Min Space (um)	15
Adhesion	Min Line (μm)	12
Lamination	Max depth (um)	10±3
Developing	Developing time (sec)	25±3
Stripping	Stripping time (sec) (3%NaOH, 50°C)	60±5
	Stripped flake size (mm)	⩽40
Tenting	Tenting (Ø mm)	/

Note: The figures above obtained from laboratory are for reference only.

2022B0