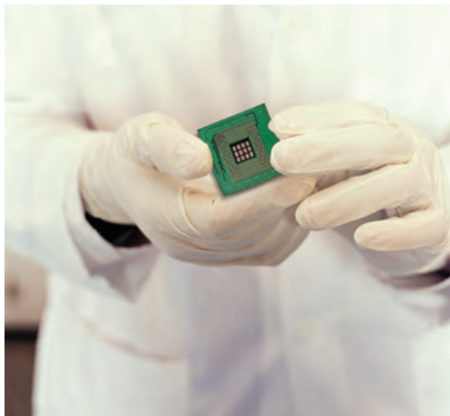
Advanced Packaging Polymers

Product Selection Guide



Dow Electronic Materials, a global supplier of materials and technologies to the electronics industry, brings innovative leadership to the semi-conductor, interconnect, finishing, display, photovoltaic, LED and optics markets. From advanced technology centers worldwide, teams of talented Dow research scientists and application experts work closely with customers, providing solutions, products and technical service necessary for next-generation electronics. These partnerships energize Dow's power to invent.

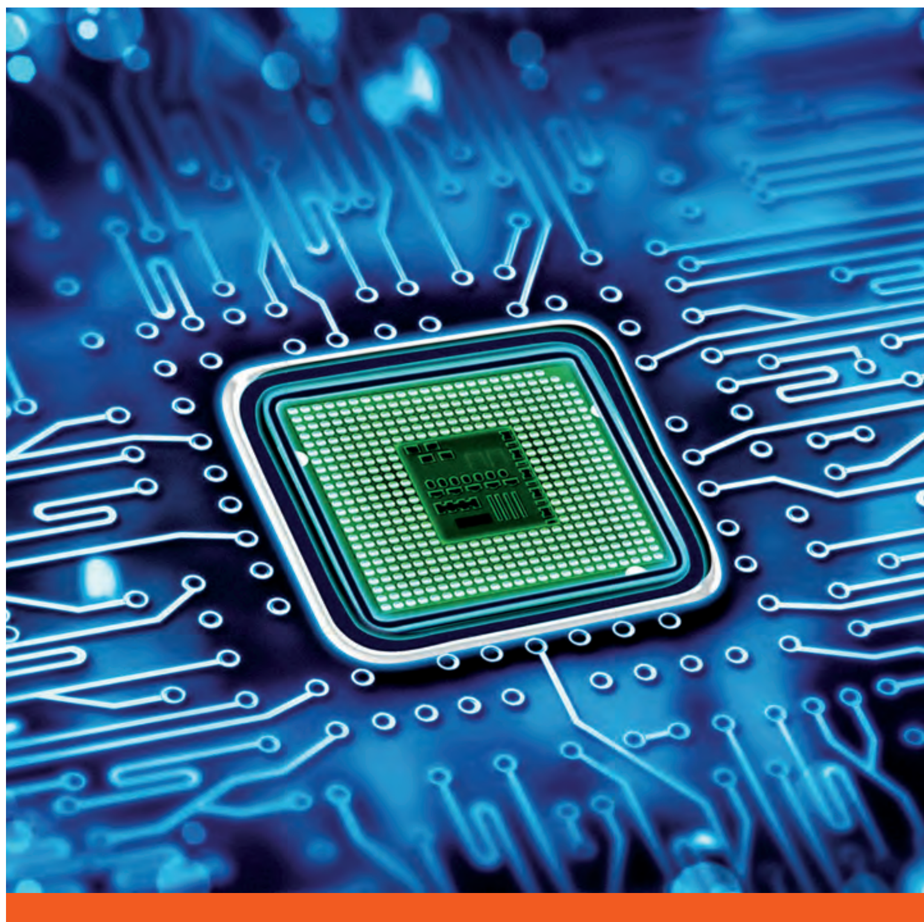
Dow's portfolio includes: CMP, lithography, metallization and ceramic materials for semiconductor applications; surface preparation, metallization and imaging materials for interconnect, electronic and industrial finishing, and photovoltaic applications; precursor materials for LED, solar and semiconductor manufacturing; OLED materials, display films, and display chemicals for LCD and plasma display fabrication; and zinc-based materials for optics.

Innovation through Partnership

Dow Electronic Materials supplies materials essential for a wide range of advanced semiconductor packaging applications - products and processes that enable the drive towards reduced form factor and increased functionality in electronic devices that require smaller and more reliable chip-to-chip and chip-to-circuit board interconnects and packages. Through its Advanced Packaging Technologies business, Dow Electronic Materials offers a portfolio of materials that deliver enabling technology for leading-edge packaging schemes, such as WLCSP, Flip Chip, SiP, and 3D chip packages.

Dow offers a wide range of polymer materials, including dry-etch and photo-imageable dielectrics, positive RDL photoresists, negative bump resists, conformal resists and all the necessary ancillaries for processing them. Development programs and customer qualifications are underway for new assembly materials, temporary wafer bonding materials and dielectrics for laser ablation applications. Contact your Dow account manager for more information on these development programs.

We work closely with our customers to understand technology needs and drive our innovation. What's more, our products come with the world-class, globally-deployed support that is the hallmark of Dow Electronic Materials.



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Dielectric Materials

Dow Electronic Materials offers two lines of dielectric materials specifically designed for a wide range of advanced packaging applications. CYCLOTENE™ Advanced Electronics Resins from Dow Electronic Materials are high-purity polymer solutions that are either photoimageable or dry-etch and formulated as high-solids, low-viscosity solutions. INTERVIA™ Photodielectrics are spin-on, negative-tone permanent dielectric materials designed for use on wafers and organic/inorganic substrates.

Application

DIELECTRIC	Description	Film Thickness	Mode of use	Cure temp
DRY ETCH CYCLOTENE™ Advanced Electronics Resin				
CYCLOTENE™ 3022-35	Redistribution and or protection Dielectric, Dry etch product offering	1.0 – 2.4	Track based Application, Spin-on, Dry-etch Pattern (non Photo formulation)	200 – 250°C (<100ppm O_2)
CYCLOTENE™ 3022-46		2.4 – 5.8		
CYCLOTENE™ 3022-57		5.7 – 15.6		
CYCLOTENE™ 3022-63		9.5 – 26.0		
XUS 35077.00 Devel. CYCLOTENE™		Formulation Type Dependent		
PHOTO Defined CYCLOTENE™ Advanced Electronics Resin (Negative Tone, Solvent Developed Dielectric)				
CYCLOTENE™ 4022-25	Redistribution and or protection Dielectric, Photo defined Solvent developed product.	0.8 – 1.8	Track based Application, Spin-on, Photo Pattern Solvent Develop Puddle and dip capable, Requires Fluorine/O_2 Plasma descum	200 – 250°C (<100ppm O_2)
CYCLOTENE™ 4022-35		2.5 – 5.0		
CYCLOTENE™ 4024-40		3.5 – 7.5		
CYCLOTENE™ 4026-46		7.0 –14.0		
XUS 35078.00 Dev. CYCLOTENE		Formulation Type Dependent		
PHOTO Defined CYCLOTENE™ Advanced Electronics Resin (Positive Tone, Aqueous Developed Dielectric)				
CYCLOTENE™ P6001	Redistribution and or protection Dielectric Photo defined spin on material for high resolution applications.	0.5 – 0.6	Track based Application, Spin-on, Photo Pattern Solvent Develop, Fluorine/O_2 Plasma Descum optional	200 – 250°C (<100ppm O_2)
CYCLOTENE™ 6505		3.5 – 7.5		
PHOTO Defined InterVia™ Epoxy Resin (Negative Tone Aqueous Developed Dielectric)				
INTERVIA™ 8023-2	Redistribution and or protection Dielectric Photo defined spin on material.	4.0 – 8.0	Track based Application, Spin-on, Photo Pattern Aqueous Puddle Develop, O_2 Plasma Descum	175 – 225°C (<100ppm O_2, optional, Air cure capable)
INTERVIA™ 8023-10		8.5 – 15.0		
OPTL – Sacrificial Hard Mask Application Material				
XUS 35147.00	Spin-on Hardmask Application Material	Formulation Type Dependent	Track Based, Spin-on Hard mask	350–450°C (<100ppm O_2)

Physical Properties

DIELECTRIC	Viscosity (cSt @ 25°C)	Dielectric constant	Dielectric Loss @ 100MHz	Moisture Uptake 23C/45% RH	Modulus	Thermal Stability, <1wt% loss/hr	Elongation	Coeffi- cient of Thermal Expansion (CTE)	Residual Stress	Glass Trans. Temp. Tg)
DRY ETCH CYCLOTENE™ Advanced Electronics Resin										
CYCLOTENE™ 3022-35	14	2.65 @ 1 MHZ 2.5 @ 10 GHz	0.0008 @ 1 MHz 0.002 @ 10 GHz	< 0.2%	2.8 GPa	>300°C	8%	42ppm/°C	28 MPa	> 350°C
CYCLOTENE™ 3022-46	52									
CYCLOTENE™ 3022-57	258									
CYCLOTENE™ 3022-63	870									
XUS 35077.00 Devel. CYCLOTENE™	Formulation Type Dependent									
PHOTO Defined CYCLOTENE™ Advanced Electronics Resin (Negative Tone, Solvent Developed Dielectric)										
CYCLOTENE™ 4022-25	36	2.65 @ 1 MHZ 2.5 @ 10 GHz	0.0008 @ 1 MHz 0.002 @ 10 GHz	< 0.2%	2.8 GPa	>300°C	8%	42ppm/°C	28 MPa	> 350°C
CYCLOTENE™ 4022-35	192									
CYCLOTENE™ 4024-40	350									
CYCLOTENE™ 4026-46	1100									
XUS 35078.00 Dev. CYCLOTENE	Formulation Type Dependent									
PHOTO Defined CYCLOTENE™ Advanced Electronics Resin (Positive Tone, Aqueous Developed Dielectric)										
CYCLOTENE™ P6001	6	3.0	0.009	1.0%	3.6 GPa	290°C	11%	55ppm/°C	31 MPa	> 390°C
CYCLOTENE™ 6505	190	3.2	0.015	1.1%	2.9 GPa	290°C	13%	45ppm/°C	29 MPa	
PHOTO Defined InterVia™ Epoxy Resin (Negative Tone Aqueous Developed Dielectric)										
INTERVIA™ 8023-2	200	3.6 (1MHz)	4.0 – 8.0	0.5%	4.0 GPa	240°C	5%	59ppm/°C	31 MPa	183°C
INTERVIA™ 8023-10	1000		8.5 –15.0							
OPTL – Sacrificial Hard Mask Application Material										
XUS 35147.00	Formulation Type Dependent	N/A	N/A	0.24%	3.3 GPa	>450°C	NA	62ppm	60 MPa	>490°C

Litho Capability

DIELECTRIC	Film Thickness Range	Tone	UV Sensitivity	Via Resolution/ Feature Size	Via Aspect ratio	Side Wall slope
DRY ETCH CYCLOTENE™ Advanced Electronics Resin						
CYCLOTENE™ 3022-35	< 1.0 – 26.0	NA-Non Photo prod.	NA-Non Photo prod.	NA-Non Photo prod.	NA-Non Photo prod.	NA-Non Photo prod.
CYCLOTENE™ 3022-46						
CYCLOTENE™ 3022-57						
CYCLOTENE™ 3022-63						
XUS 35077.00 Devel. CYCLOTENE™						
PHOTO Defined CYCLOTENE™ Advanced Electronics Resin (Negative Tone, Solvent Developed Dielectric)						
CYCLOTENE™ 4022-25	0.8 – 30.0	Negative	Broad band (i,g,h), Dichromatic (g,h) and monochromatic (i)	15 μm (5 μm FT)	1:3	45°
CYCLOTENE™ 4022-35						
CYCLOTENE™ 4024-40						
CYCLOTENE™ 4026-46						
XUS 35078.00 Dev. CYCLOTENE						
PHOTO Defined CYCLOTENE™ Advanced Electronics Resin (Positive Tone, Aqueous Developed Dielectric)						
CYCLOTENE™ P6001	0.6 – 1.0 μm for spin coat (3–5 μm extrusion coating)	Positive	Broad band (i,g,h) or monochromatic (i)	<5 μm (5 μm FT)	>1:1	65–70°
CYCLOTENE™ 6505	3.5 – 7.5 μm (single spin coat), 12–14 μm for double coat	Positive	Broad band (i,g,h) or monochromatic (i)	<5 μm (5 μm FT)	>1:1	65–70°
PHOTO Defined InterVia™ Epoxy Resin (Negative Tone Aqueous Developed Dielectric)						
INTERVIA™ 8023-2	3.5–15	Negative	Broad band (i,g,h)	20 μm (10 μm FT)	1:2	75–80°
INTERVIA™ 8023-10						
OPTL – Sacraficial Hard Mask Application Material						
XUS 35147.00	< 1 um	Non Photo product	Non Photo product	Non Photo product	Non Photo product	Non Photo product

Logistics

DIELECTRIC	Supporting Ancillary products	Availability	Package size	Shipping Cond.	Storage Cond.	Product shelf life
DRY ETCH CYCLOTENE™ Advanced Electronics Resin						
CYCLOTENE™ 3022-35	• Adhesion Promoter AP3000 • Adhesion Promoter AP8000 • Rinse T1100		0.8 kg (amber Glass) 3.5 kg (amber Glass)	Room Temperature	Room Temperature	2 years
CYCLOTENE™ 3022-46		In Stock	0.8 kg (amber Glass) 3.5 kg (amber Glass)			
CYCLOTENE™ 3022-57		Make to order	0.8 kg (amber Glass) 3.5 kg (HDPE)			
CYCLOTENE™ 3022-63		Make to order	0.8 kg (amber Glass) 3.5 kg (HDPE)			
XUS 35077.00 Devel. CYCLOTENE™		Make to order	0.8 kg (amber Glass)			
PHOTO Defined CYCLOTENE™ Advanced Electronics Resin (Negative Tone, Solvent Developed Dielectric)						
CYCLOTENE™ 4022-25	• Adhesion Promoter AP3000 • Adhesion Promoter AP8000 • Developer DS2100 (puddle) • Developer DS3000 (tank) • Rinse T1100	In Stock	0.8 kg (amber Glass)	"Dry ice" Package	Cold Storage: -15 to -25°C (Freezer)	1 year
CYCLOTENE™ 4022-35		In Stock	0.9 kg (amber Glass)			
CYCLOTENE™ 4024-40		In Stock	0.9 kg (amber Glass)			
CYCLOTENE™ 4026-46		In Stock	0.9 kg (amber Glass)			
XUS 35078.00 Dev. CYCLOTENE		Make to order	0.8 kg (amber Glass)			18 months
PHOTO Defined CYCLOTENE™ Advanced Electronics Resin (Positive Tone, Aqueous Developed Dielectric)						
CYCLOTENE™ P6001	• Adhesion Promoter AP9000S • MICROPOSIT™ EBR 10-A Edge Bead Remover • CD-26 Developer	Make to order	0.8 kg (amber Glass) 3.5 kg (ambler Glass)	"Blue ice" Package	Cold Storage: (Target -15°C)	13 months (400 days)
CYCLOTENE™ 6505		In Stock	1 qt (amber Glass) 1 gal (amber Glass)			1 year
PHOTO Defined InterVia™ Epoxy Resin (Negative Tone Aqueous Developed Dielectric)						
INTERVIA™ 8023-2	• MICROPOSIT™ EBR 10-A Edge Bead Remover • CD-26 Developer	Make to order	1.0 kg (Plastic)	"Blue ice" Package	Cold Storage (Target 4°C)	4–6 months from Date of manufacture
INTERVIA™ 8023-10						
OPTL – Sacrificial Hard Mask Application Material						
XUS 35147.00	Adhesion Promoter AP6300	Make to order	0.9 kg (NowPak) 3.8 kg (NowPak)	Room Temperature	Cold Storage (Target 4YC)	27 months

Photoresist Materials

Dow Electronic Materials offers positive- and negative-tone photoresists that are ideally suited for wafer-level packaging applications. Dow's liquid, single-spin i-line, g-line and broad-band compatible photoresists that cover a wide range of thicknesses necessary to meet the requirements of a variety of advanced packaging applications. Our electrodeposited 3D photoresists have excellent conformal properties, making them ideal for substrates with complex geometries.

Application

PHOTORESIST	Description	Film Thickness	Mode of use	Cure temp
Positive Tone RDL Resist				
SPR220-1.2	Spin-on positive-tone photo resist for Front and Back end of line (FEOL & BEOL) pattern applications and wet/dry silicon etch (RIE) protection.	0.8–1.6	Track based Application, Spin-on, Photo Pattern Aqueous Puddle Develop	NA
SPR220-3.0	Spin-on positive-tone photo resist for Front and Back end of line (FEOL & BEOL) pattern applications and wet/dry silicon etch (RIE) protection.	2.5–4.6	Track based Application, Spin-on, Photo Pattern Aqueous Puddle Develop	NA
SPR220-4.0	Spin-on positive-tone photo resist for Front and Back end of line (FEOL & BEOL) pattern applications and wet/dry silicon etch (RIE) protection.	3.5–6.5	Track based Application, Spin-on, Photo Pattern Aqueous Puddle Develop	NA
SPR220-4.5	Spin-on positive-tone photo resist for Front and Back end of line (FEOL & BEOL) pattern applications and wet/dry silicon etch (RIE) protection.	4.1–7.7	Track based Application, Spin-on, Photo Pattern Aqueous Puddle Develop	NA
SPR220-7.0	Spin-on positive-tone photo resist for Front and Back end of line (FEOL & BEOL) pattern applications and wet/dry silicon etch (RIE) protection.	6.9 –13.0	Track based Application, Spin-on, Photo Pattern Aqueous Puddle Develop	NA
SYSTEM 827	Spin-on positive-tone photo resist for Front and Back end of line (FEOL & BEOL) pattern applications and wet/dry silicon etch (RIE) protection.	2.9–5.5	Track based Application, Spin-on, Photo Pattern Aqueous Puddle Develop	NA
Negative Tone Bump Resist				
BPR-65A	Spin-on Negative-tone photo resist for BEOL Bump resist applications.	35–55 µm (double coat capable for Film thickness 60–110µm)	Track based Application, Spin-on, Photo Pattern Aqueous Puddle Develop	NA
Shipley BPR-100	Thick spin-on Bump Plating Resist, > 50 µm Film thickness and back side protection applications	60 – 80 µm		NA
CONFORMAL Resist (Neg./Pos.)				
INTERVIA™ 3D-N	Electrophoretic photo resist supporting, negative tone for RDL applications on conductive topographical surfaces.	5.0 –15	Electroporetic Deposition, Photo Pattern, Heated organic acid aqueous dip or spray develop	NA
INTERVIA™ 3D-P	Electrophoretic photo resist supporting, Positive tone for RDL applications on conductive topographical surfaces.	3.5 –12		NA

Litho Capability

PHOTORESIST	Viscosity (cSt @ 25°C)	Film Thickness Range	Tone	UV Sensitivity	Via Resolution/ Feature Size	Via Aspect ratio	Side Wall slope
Positive Tone RDL Resist							
SPR220-1.2	11.5 –12.1	0.8–1.6	Positive	Monochromatic (i-Line and g-Line) and Broad band (i,g,h)	See Datasheet for Lithographic Capabilities		
SPR220-3.0	44.7 – 50.9	2.5–4.6	Positive	Monochromatic (i-Line and g-Line) and Broad band (i,g,h)	See Datasheet for Lithographic Capabilities		
SPR220-4.0	80.5 – 91.5	3.5 – 6.5	Positive	Monochromatic (i-Line and g-Line) and Broad band (i,g,h)	See Datasheet for Lithographic Capabilities		
SPR220-4.5	116.7 – 130.2	4.1 – 7.7	Positive	Monochromatic (i-Line and g-Line) and Broad band (i,g,h)	See Datasheet for Lithographic Capabilities		
SPR220-7.0	388.3 – 458.9	6.9 –13.0	Positive	Monochromatic (i-Line and g-Line) and Broad band (i,g,h)	See Datasheet for Lithographic Capabilities		
SYSTEM 827	72–75	2.9–5.5	Positive	Monochromatic (i-Line and g-Line) and Broad band (i,g,h)	See Datasheet for Lithographic Capabilities		
Negative Tone Bump Resist							
BPR-65A	4000	35–55 µm (single spin)	Negative	Monochromatic (i-Line and g-Line) and Broad band (i,g,h)	See Datasheet for Lithographic Capabilities		
Shipley BPR-100	6500	60– 80 µm (single spin)	Negative	Broad band (i,g,h)			
CONFORMAL Resist (Neg./Pos.)							
INTERVIA™ 3D-N	9–11% (working solution) 15% solids Concentrate	5.0 – 15	Negative	Monochromatic (i-Line and g-Line) and Broad band (i,g,h)	See Datasheet for Lithographic Capabilities		
INTERVIA™ 3D-P	9–11% (working solution) 20% solids Concentrate	3.5 –12					

Logistics

PHOTORESIST	Supporting Ancillary products	Availability	Package size	Shipping Cond.	Storage Cond.	Product shelf life
Positive Tone RDL Resist						
SPR220-1.2	EBR10A (coat Bowl Solvent) MICROPOSIT MFCD-26 (Puddle Developer) MICROPOSIT MFCD-26A (surfactant based Puddle Dev.) MICROPOSIT MF24A (lower conc. Surfact. Based Puddle Developer) Remover 1165A (Film Remover)	Make to order	1 qt or 1 gal	"Blue ice" Package	5 –10° C	365 days
SPR220-3.0	EBR10A (coat Bowl Solvent) MICROPOSIT MFCD-26 (Puddle Developer) MICROPOSIT MFCD-26A (surfactant based Puddle Dev.) MICROPOSIT MF24A (lower conc. Surfact. Based Puddle Developer) Remover 1165A (Film Remover)	Make to order	1 qt or 1 gal	"Blue ice" Package	5 –10° C	365 days
SPR220-4.0	EBR10A (coat Bowl Solvent) MICROPOSIT MFCD-26 (Puddle Developer) MICROPOSIT MFCD-26A (surfactant based Puddle Dev.) MICROPOSIT MF24A (lower conc. Surfact. Based Puddle Developer) Remover 1165A (Film Remover)	Make to order	1 qt, 1 gal, 2.5 gal	"Blue ice" Package	5 –10° C	365 days
SPR220-4.5	EBR10A (coat Bowl Solvent) MICROPOSIT MFCD-26 (Puddle Developer) MICROPOSIT MFCD-26A (surfactant based Puddle Dev.) MICROPOSIT MF24A (lower conc. Surfact. Based Puddle Developer) Remover 1165A (Film Remover)	Make to order	1 qt, 1 gal, 2.5 gal	"Blue ice" Package	5 –10° C	365 days
SPR220-7.0	EBR10A (coat Bowl Solvent) MICROPOSIT MFCD-26 (Puddle Developer) MICROPOSIT MFCD-26A (surfactant based Puddle Dev.) MEGAPOSIT MF24A (lower conc. Surfact. Based Puddle Developer) Remover 1165A (Film Remover)	Make to order	1 gal	"Blue ice" Package	5 –10° C	365 days
SYSTEM 827	EBR10A (coat Bowl Solvent) MICROPOSIT MFCD-26 (Puddle Developer) MICROPOSIT MFCD-26A (surfactant based Puddle Dev.) MEGAPOSIT MF24A (lower conc. Surfact. Based Puddle Developer) Remover 1165A (Film Remover)	Make to order	1 gal	“Blue ice” Package	10 – 20° C (50 – 68° F)	365 days
Negative Tone Bump Resist						
BPR-65A	EBR10A (coat Bowl Solvent) CD-26 (Puddle Developer) BPR Photostripper (Film Remover)	Make to order	1 L or 1 gal	"Blue ice" Package	5 –15° C	180 days
Shipley BPR-100	EBR10A (coat Bowl Solvent) EAGLE 2005 Developer (Dip/spray developer concentrate) BPR Photostripper (Film Remover)	Make to order	1 L or 1 gal	"Blue ice" Package	5 –15° C	180 days
CONFORMAL Resist (Neg./Pos.)						
INTERVIA™ 3D-N	PREPOSIT 24A Spray cleaner EAGLE 2005 Developer (Dip/spray developer concentrate) BPR Photostripper (Film Remover)	Make to order	1 L, 1 gal, 20 L	10 – 32° C (50° – 90° F)	10 – 32° C (50 –90° F)	365 days
INTERVIA™ 3D-P	PREPOSIT 24A Spray cleaner CD-26 (Puddle Developer) BPR Photostripper (Film Remover)	Make to order	1 L, 1 gal, 20 L	10 – 32° C (50° – 90° F)	5 –15° C	180 days

Ancillary Products

Dow Electronic Materials offers a wide range of ancillary materials necessary for processing our advanced packaging polymers. Each material is designed to optimize the performance of our polymers and maximize ease of use for our customers. Many of our ancillary products are developed with specific applications in mind.

Application

PRODUCT	Description	Mode of use
Removers		
BPR photostripper	NMP based, multiple solvent film remover	Tank (Soak) with proper ventilation or commercial wash tool capable
INTERVIA™ 2011 Remover	Non-NMP multiple solvent based film remover	Tank (Soak) with proper ventilation or commercial wash tool capable
Remover 1165A	NMP based film remover	Tank (Soak) with proper ventilation or commercial wash tool capable
Primary Stripper A	Remover for rework of CYCLOTENE™ 4000 prior to cure	Tank (Soak) with proper ventilation required
Surface Treatments		
INTERVIA Adh Pro – Cleaner	Copper treatment step for optional adhesion promotion, copper clean step	Tank Dip process, or individual wafer process tool capable
INTERVIA Adh Pro – Predip	Copper treatment step for optional adhesion promotion, copper surface condition step	Tank Dip process, or individual wafer process tool capable
INTERVIA Adh Pro – Treatment	Copper treatment step for optional adhesion promotion, copper surface treatment step	Tank Dip process, or individual wafer process tool capable
Spray Cleaner 742	Surface pretreatment solution supporting electrophoretic (ED) resist products	Tank Dip process, or individual wafer process tool capable
Adhesion Promoters		
Adhesion Promoter AP3000	Spin-on Adhes. Promoter	Track based, spin on application with applied thermal
Adhesion Promoter AP8000	Spin-on Adhes. Promoter	Track based, spin on application with applied thermal
Adhesion Promoter AP6300	Spin-on Adhes. Promoter	Track based, spin on application with applied thermal
Adhesion Promoter AP9000S	Spin-on Adhes. Promoter	Track based, spin on application with applied thermal
Developers		
Developer DS2100	Solvent for track puddle develop	Track dispense on puddle develop tool
Developer DS3000	Solvent for Dip develop process	Dip Develop process with proper ventilation
MICROPOSIT™ MF-CD-26	Metal ion free caustic puddl development solution, no surfactants	Track dispense on puddle develop tool
MICROPOSIT™ MF-CD-26A	Metal ion free caustic puddle development solution with surfactant	Track dispense on puddle develop tool
MEGAPOSIT™ MF-24A	Lower Conc. Metal ion free caustic puddle development solution with surfactant	Track dispense on puddle develop tool
EAGLE™ 2005	Developer concentrate supporting organic acid based development	Supports Commercial Spray tool or Dip develop processing
Track Solvents		
Rinse T1100	Solvent supporting spin coat application	Track dispense pressurized feed line

Logistics

PRODUCT	Supporting Ancillary products	Availability	Package size	Shipping Cond.	Storage Cond.	Product shelf life
Removers						
BPR photostripper	SPR-220, BPN 65A, INTERVIA™ 3D-P, INTERVIA™ 3D-N,	Make to order	4 × 1 gal	No thermal control measures req.	10 – 20°C	730 days
INTERVIA™ 2011 Remover	SPR-220, BPN 65A, INTERVIA™ 3D-P, INTERVIA™3D-N	Make to order	1 gal or 20 L	No thermal control measures req.	10 –32° C (50–90° F)	365 days
Remover 1165A	SPR-220, INTERVIA™3D-P, INTERVIA™ 3D-N	Make to order	1 gal, 5 gal, 55 gal	No thermal control measures req.	10 – 32° C (50 – 90° F)	365 days
Primary Stripper A	CYCLOTENE™ 4000	In Stock	4 kg (amber Glass)	No thermal control measures req.	Room temp. storage	730 days
Surface Treatments						
INTERVIA Adh Pro – Cleaner	INTERVIA™ 8023	Make to order	20 L	No thermal control measures req.	10 – 32° C (50 – 90° F)	180 days
INTERVIA Adh Pro – Predip	INTERVIA™ 8023	Make to order	20 L	No thermal control measures req.	10 – 32° C (50 –90° F)	180 days
INTERVIA Adh Pro – Treatment	INTERVIA™ 8023	Make to order	20 L	15° C and above	15° C and above	180 days
Spray Cleaner 742	INTERVIA™ 3D-P, INTERVIA™ 3D-N	Make to order	20 L or 200 L	Keep from freezing	10 – 30° C	730 days
Adhesion Promoters						
Adhesion Promoter AP3000	CYCLOTENE™ 3000, 4000 Advanced Electronics Resin	In Stock	3.5 kg (amber Glass) 4 × 3.5 kg	No thermal control measures req.	Room temp. storage	2 years from Date of manufacturing
Adhesion Promoter AP8000	CYCLOTENE™ 3000, 4000 Advanced Electronics Resin, glass bonding applications	Make to order In Stock	3.5 kg (amber Glass) 4 × 3.5 kg	No thermal control measures req.	Room temp. storage	2 years from Date of manufacturing
Adhesion Promoter AP6300	SiLK™ Semiconductor Dielectric and OPTL Resins	Make to order	3.8 kg (NowPak)	No thermal control measures req.	Room temp. storage	2 years from Date of manufacturing
Adhesion Promoter AP9000S	CYCLOTENE™6000 Advanced Electronics Resin	Make to order	3.5 kg (amber Glass) 4 × 3.5 kg	No thermal control measures req.	Room temp. storage	1 years from Date of manufacturing
Developers						
Developer DS2100	CYCLOTENE™ 4000 Advanced Electronics Resin	In Stock	3.24 kg (amber Glass) 4 × 3.24 kg	No thermal control measures req.	Room temp. storage	2 years from date of manufacturing
Developer DS3000	CYCLOTENE™ 4000 Advanced Electronics Resin	In Stock	3.24 kg (amber Glass) 4 × 3.24 kg	No thermal control measures req.	Room temp. storage	2 years from Date of manufacturing
MICROPOSIT™ MF-CD-26	INTERVIA™ 8023, SPR-220, BPN-65A, INTERVIA™ 3D-P	In Stock	1 gal	No thermal control measures req.	10 – 32° C (50 – 90° F)	1 year from date of manufacturing
MEGAPOSIT™ MF-CD-26A	SPR-220, INTERVIA™3D-P	In Stock	1 gal	No thermal control measures req.	10 – 32° C (50 – 90° F)	1 year from date of manufacturing
MEGAPOSIT™ MF-24A	SPR-220, INTERVIA™3D-P	In Stock	1 gal	No thermal control measures req.	10 – 32° C (50-90° F)	1 year from date of manufacturing
EAGLE™ 2005	INTERVIA™ 3D-N	Make to order	20 L	No thermal control measures req.	10 – 32° C (50 – 90° F)	1 year from date of manufacturing
Track Solvents						
Rinse T1100	CYCLOTENE™ 3000, 4000 Advanced Electronics Resin	In Stock	3.24 kg (amber Glass) 4 × 3.24 kg	No thermal control measures req.	Room temp. storage	2 years from date of manufacturing

North America
Dow Electronic Materials
455 Forest Street
Marlborough, Massachusetts 01752
USA
Tel: 508-481-7950
Fax: 508-485-9113

South Korea
Dow Electronic Materials
(Rohm and Haas Electronic Materials Korea Ltd.)
Union Steel Bldg. 11F-15F
890 Daechi 4-dong
Gangnam-gu
Seoul 135-524-, Korea
Tel: +82-2-3490-0700
Fax: +82-2-3489-4302

Japan
Dow Electronic Materials
(Rohm and Haas Electronic Materials KK)
Tennoz Central Tower
2-2-24 Higashi Shinagawa
Shinagawa-ku, Tokyo 140-8617
Japan
Tel: 81-3-5460-2200
Fax: 81-3-5460-2930

Taiwan
Dow Electronic Materials
(Rohm and Haas Electronic Materials Taiwan Ltd.)
No. 6, Lane 280
Chung Shan North Road
Ta Yuan Industrial Zone Ta Yuan Hsiang
Taoyuan Hsien, 337, Taiwan
Tel: 886-3-385-8000
Fax: 886-3-385-8333

China
Dow Electronic Materials
(Rohm and Haas Electronic Materials (Shanghai) Co., Ltd.)
No. 936 ZhangHeng Road
ZhangJiang Hi-Tech Park
Shanghai 201203, P.R.C.
Tel: 86-21-3851-3259
Fax: 86-21-5895-4458

dowelectronicmaterials.com

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