

Product Application

TechniStrip® P1316 is an highly effective photoresist remover used at leading-edge chip manufacturers over an extensive variety of stages.

It was initially utilized to rapidly dissolve reticulated black resin on glass substrate for display applications. Remarkable yield gain up to 10% reported by customers confirmed the unique performance of this proprietary formulation in terms of resin dissolution and debris removal.

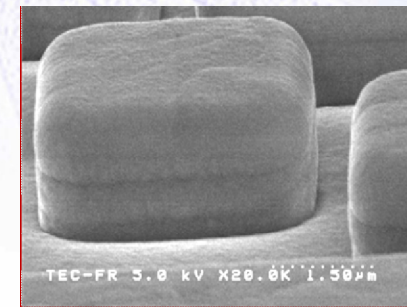
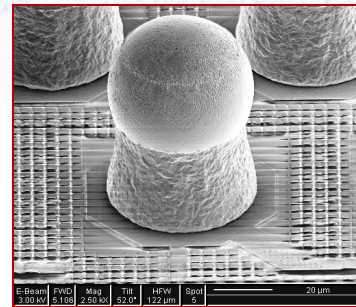
The solution is also fully applied on a large range of resins (novolac, polyimide, polyamide, epoxy, acrylic, etc...) and integration steps (FE/BEOL stripping, TSV, Cu pillar, resin rework, etc...). Based upon a fine organic solvent/additive ratio blend, optimized to maximize surface wetting, resin dissolution and nucleophilic properties, the TechniStrip® P1316 proves to be efficient at removing organic resin and surface residues.

Main features: very high stripping rate, large process application scope, low metals attack, complete miscibility with water...

Physico-Chemical properties

State: Uncolored to yellowish liquid	Viscosity (20°C): <2cP
Odor: strong amine like	Impurity level: < 500ppb
T°C Flash point (Closed cup): 93°C	T°C boiling: 189°C
Water Solubility: Totally miscible	
Evaporation rate (open beaker) @ 75°C	< 11 cc/hour*dm ² *

SEM Micrographs after TechniStrip® P1316 stripping in S.W.tool.



Copper pillar after SnAg reflow

After polyimide resin stripping

General Process information-Stripping efficiency (Customer'data)

Time to clear 75°C	Seconds
D.F.R "Dry film resin" 15µm to 100 µm in SWT	<50
I Line 4-5um (positive) prior to TSV Via etch	<20
I Line 1.5um (positive) post TSV Via etch	<70
D.U.V. 248 5.5 µm.	<60
Implanted D.U.V. (As E15 – 5 keV – 250µA).	<180
Implanted D.U.V. (BF2 E 15 – 5keV – 250µA).	<180
JSR SK120- Black resin 7µm	<150
Shinetsu « Bonding » Glue 15 µm.	<30
B.C.B (non exposed) in immersion	< 200
B.C.B (non annealed) in immersion	<480
THB 151N. 15 to 100µm	<400
Polyimide 3 µm.	<240
Capped novolac 3µm	<300
Ink dot	<300
Copper pillar and Sn/Ag bump 30-120µm	<600

Material compatibility

E/R in A/mn @ 70°C	WET tools		
	SWT	Immersion	Batch Spray
Al(5% Cu)	<150	<100	N/A
Cu P.V.D	<60	<30	N/A
Cu E.C.D	<60	<30	N/A
Ni	<5	<5	<5
Ta/TaN	<5	<5	<5
Ti/TiN	<3	<3	<3
Au	0	0	0
Thermal SiO ₂	<1	<1	<1
Undoped Si*	<1	<1	<1

(Customer' data)

Material	20°	80°C	Material	20°	80°C
PolyCarbonate	D	D	Chemraz®	A	A
PEEK	D	D	Viton®	B	D
NYLON	D	D	Kalrez®	A	A
P.E.S	D	D	simriz®	A	A
P.P.	A	A	EPDM	A	B
PE (H.D)	A	A	PTFE	A	A
PTFE	A	A	Buna-N	D	D
PFA	A	A	AFLAS®	C	C
PVDF	C	D	ECTFE (HALAR)	B	D
SS 316	A	A	PVC	D	D
PE (L.D)	B	C	CPVC	D	D

A fully compatible, B Noticeable change, C visible effect , D Severe effect

Equipment

TechniStrip® P1316 can be used in batch immersion and batch spray equipments, as well as in single wafers cleaning tools due to its high stripping efficiency.

Bath life

To maintain optimal cleaning performance over 24Hr, it is recommended to work within closed systems (capped batch, spray tools, SWT).

Quality

Technic' solutions are formulated using high purity and quality raw materials to ensure low ppb metal levels and particulate count. The full manufacturing process is in accordance with the company quality policy (ISO9001-2008).

Health, Safety and Environment

To obtain comprehensive information on the safe use and handling of the TechniStrip® P1316, a material safety data sheet is available on request. **Technic' safety policy is to promote safer chemical to the industry in accordance to latest European regulation and Customer' chemical banned substance list.**

Contact

TECHNIC France

15, Rue de le Montjoie – BP 79 – 93212 SAINT DENIS LA PLAINE CEDEX 79
Tel: +33 1.49.46.51.00 – technic.france@technic.fr – www.technic.com/eu/