Solvent Cleaning

	Solvent Cleaning	FLU Fluxclene	LFFR Lead Free Flux Remover	FRC Non-Flammable Flux Remover	ULS Ultrasolve	IPA Isopropyl Alcohol	ECSP ECS Plus	ULC Ultraclens	MDS Metal Degreasing Solvent	SSS Screen & Stencil Solvent	SSW Screen & Stencil Wipes	CCC Non-Flammable Cleaner	DGC Non-Flammable Degreaser
Typical Properties	Density (g/ml)	0.8	0.8	1.33	0.8	0.8	0.8	0.8	1.32	1.025	0.851	1.37	1.33
	Flashpoint (°C)	0	0	None*	0	12	-48	>60*	None*	>60*	>60*	None*	None*
	Boiling Point (°C)	>80	>80	36	>80	82	36	>173	40	>100	>100	45	36
	Vapour Pressure (kPa)	11.5	11.5	66.1	11.5	4.4	53.3	0.5	47.5	1.45	1.5	46	66.1
	Evaporation rate (ether = 1)	16	16	<1	16	6	1.5	66	6	>50	33	1.1	<1
	TLV (ppm)	300	300	242	300	400	500	300	100	300	300	242	242
Soil Removal	Heavy Grease (& organics)	Good	Good	Good	Best	Good	Good	Best	Excellent	No	No	Excellent	Excellent
	No clean fluxes	Excellent	Best	Good	No	No	No	No	No	Good	Good	Good	No
	Flux / Ionics	Best	Excellent	Excellent	No	Good	Good	No	No	Good	Good	Good	Good
	Uncured paste	Good	Good	Good	Excellent	Good	Good	Excellent	No	Best	Excellent	No	Good
	Uncured adhesive	No	No	No	No	No	No	No	No	Best	Excellent	No	No
Plastics Compatibility	ABS	Test	Test	Test	Test	Yes	Yes	Test	No	No	No	Test	Test
	Polymethacrylate (acrylic)	Test	Test	Test	Test	Yes	Test	Test	No	Test	Test	Test	Test
	Polycarbonate	No	No	Test	No	Yes	Yes	Yes	No	No	Test	Test	Test
	Polystyrene	No	No	Test	Test	Yes	Yes	Test	No	No	No	Test	Test

Evaporation Rate: The higher the number the slower the rate of evaporation.
Many solvents do not affect plastics on short contact times (spray and wipe) but may be unsuitable for prolonged immersion.
*Classified as non-flammable.

Aqueous Cleaning

	Aqueous Cleaning	SWA	SWAJ	SWAS	SWAP	SWAF*	SWAC*	SWAT*	SWAX	SWMN	SWMP	SWNP	SWNS	AFW
Equipment	Ultrasonic	Yes	Yes	Best	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No
	Pressure / Dishwasher / In-line	No	No	No	Yes	Yes	Yes	Best	Yes	No	No	No	No	No
	Spray under immersion	Yes	Yes	Yes	Yes	Yes	Yes	Best	Yes	Yes	Yes	Yes	Yes	No
	Screen and Stencil Cleaner	No	No	No	Yes	Yes	Yes	Yes	Best	No	No	No	No	No
Soil Removal	Heavy Grease (& organics)	Good	Good	Best	Good	Good	Good	Good	No	Excellent	Excellent	Excellent	Excellent	Good
	No clean fluxes	No	No	Best	Good	Good	Good	Excellent	No	No	No	No	No	No
	Flux / Ionics	Good	Excellent	Best	Excellent	Good	Excellent	Excellent	Good	No	No	Good	Good	No
	Uncured Paste	Good	Good	Good	No	No	Good	Good	Best	No	No	No	No	Good
	Uncured adhesive	No	No	No	No	No	No	Good	Best	No	No	No	No	Best
Other	Sensitive Metals	No	Yes	Yes	Yes	No	Test	Yes	Yes	No	No	Yes	Yes	Test
	Rinsability	Good	Good	Good	Good	Good	Good	Best	Good	Good	Good	Good	Good	Good
	Low Foam	No	No	No	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	No

All the above products are water based and must not be stored at temperatures below 5°C.
Disposal: All products should be disposed of in accordance with local regulations.
* Concentrates require dilution.

Product Selector Charts

Thermal Management

Thermal Management	Non-Silicone Heat Transfer Compound	Non-Silicone Heat Transfer Compound Xtra	Non-Silicone Heat Transfer Compound Plus	Non-Silicone Heat Transfer Compound Plus Xtra	Silicone Heat Transfer Compound	Silicone Heat Transfer Compound Plus	Thermally Conductive RTV	Thermally Conductive RTV	2 Part Thermal Bonding System	2 Part Epoxy
Typical Properties	HTC	HTCX	HTCP	HTCPX	HTS	HTSP	TCOR	TCER	TBS	ER2074
Base Material	Non-Silicone Oil	Non-Silicone Oil	Non-Silicone Oil	Non-Silicone Oil	Silicone Oil	Silicone Oil	Silicone RTV	Silicone RTV	Epoxy	Epoxy
Thermal Conductivity (W/mK)	0.9	1.35	2.5	3.4	0.9	3	1.8	2.2	1.1	1.26
Density (g/ml)	2.04	2.61	3	3.1	2.1	3	2.3	2.3	2.8	2.09
Temperature Range (°C)	-50 to +130	-50 to +130	-50 to +130	-50 to +130	-50 to +200	-50 to +200	-50 to +230	-50 to +230	-40 to +120	-40 to +130
Evaporation Weight Loss (96hrs @ 100°C IP-183)	≤1.00%	<0.40%	≤1.00%	≤1.00%	≤0.80%	≤0.80%	N/A	N/A	N/A	N/A
Dielectric Strength (kV/mm)	42	42	42	42	18	18	>8	>8	11	10
Electrical Insulation (Ω/cm)	10^{14}	10^{14}	10^{14}	10^{14}	10^{15}	10^{15}	10^{14}	10^{14}	10^{14}	10^{15}
Cure Time (Hours @ 20°C / Minutes @ 100°C)	N/A	N/A	N/A	N/A	N/A	N/A	24 hours*	24 hours*	48/45	24/60
Viscosity/Pa s	Paste: 205-225	Paste: 127-141	Paste: 101-112	Paste: 606-670	Paste: 201-227	Paste: 42-48	Paste: 140-150	Paste: 80-90	Mixed System Adhesive: 70-80	Mixed System Resin: 167

*Requires moisture to cure, elevated temperatures not recommended unless moisture is present.

Conformal Coatings

Conformal Coatings	Silicone Conformal Coating (SCC3)	Fast-Dry DCA	DCA-HT (SCC4)	Non-VOC Coating	Non-VOC Coating High Viscosity	Non-VOC Coating Gel	Aquacoat Plus	Aquacoat Plus Sprayable	Lead Free Conformal Coating**	High Performance Acrylic	Toluene Free Acrylic	Acrylic Protective Lacquer	Polyurethane Coating	Flexible Silicone Coating	Clear Protective Lacquer	Flurocoat
Typical Properties	SCC3 DCA/DCB/DCR	DCA-FD	DCA-HT	NVOC	NVOC-HV	NVOC-GL	WBP	WBPS	LFCC	HPA	TFA	APL	PUC	FSC	CPL	TFCF
Viscosity (Bulk) (cPs@20°C, Brookfield)	200	500	200	80	170	25000	200	80	N/A	300	260	300	240	550	25	2
Flashpoint (°C) (Bulk)	27	27	27	None	None	None	None	None	<23	<0	<0	<0	38	27	12	7
Solids (%) (Bulk)	37	50	40	100	100	100	35	35	27	35	36	35	37	50	21	2
Dielectric Strength (kV/mm)	90	90	90	60	60	60	50	50	80	45	45	45	60	80	45	90
Insulation Resistance (Ω)	10^{15}	10^{15}	10^{15}	10^{13}	10^{13}	10^{13}	10^{11}	10^{11}	10^{15}	10^{15}	10^{15}	10^{15}	10^{12}	10^{20}	10^{12}	10^{15}
Temp. Range (°C)	-70 to +200	-70 to +200	-70 to +200	-60 to +125	-60 to +125	-60 to +125	-60 to +125	-60 to +125	-50 to +150	-55 to +130	-65 to +125	-55 to +130	-55 to +130	-50 to +125	-50 to +100	-50 to +125
Touch Dry Time (min @ 20°C)	50-55	20	50-55	70	70	70	25-35	25-35	50-55	10-15	15-20	10-15	40-45	10-15	15-20	5
Cure Time (Hours @ 20°C)	2@20°C & 2@90°C*	2@20°C & 2@90°C	2@20°C & 2@90°C	24	24	24	24	24	24	24	24	24	24	24	24	24
Solvent Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Good	Excellent	Good	Poor	Good
Humidity Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Good	Excellent	Excellent	Excellent	Good	Excellent	Good	Excellent
Mould Resistance	Excellent	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good	Good	Excellent	Excellent	Excellent	Excellent	Excellent	Good	Good
Thinners	DCT	DCT	DCT	N/A	N/A	N/A	DI Water	DI Water	N/A	UAT	DCT	UAT	PTH	DCT	DCT	N/A
UV Trace	Yes (DCA)	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	Yes
Colours Available	Clear/Black/Red	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear	Clear
Approvals	UL746CQMJU2	Meets UL746	Meets UL746	UL94V-0. Meets IPC-CC-830	Meets UL94V-0 IPC-CC-830	-	Meets UL94 V-1	Meets UL94 V-1	Meets MIL-I-46058C IPC-CC-803	MIL-I-46058C meets IPC-CC-803	IPC-CC-830 meets UL94V-1	—	Meets UL94HB	IEC61086	—	—

*SCC3 requires thermal curing to achieve full chemical resistance properties. Please see the technical data sheet for more information.
** Aerosol Only

Contact Lubricants

Contact Lubricants	SGA 2G	SGB 2GX	CG52B	CG53A	CG60	CG70	CG71	EGF	EPC	SPG PLastics Lubricant	LCG	EML
Colour	Light Brown	Light Brown	Beige	Cream	Cream	Cream	Cream	White	Red	Light Brown	Cream	Pail Straw
Pour Point (base oil, °C IP-15)	-46	-37	-45	-37	-54	-57	-56	-25	-46	-57	-52	-37
% Evaporation Weight Loss between 24 and 150 hrs (IP-183 100°C)	0.9	0.93	0.84	0.21	0.3	0.3	0.3	<0.1	0.9	0.2	0.3	6.2
Fliessdruck (mbar, -40°C, DIN 51405	650	720	400	350	300	300	300	1100	650	450	300	N/A
Drop Point (°C IP-31)	>250	>250	>230	200	200	200	200	>250	>250	>250	200	N/A
Penetration (Worked, Cone, 20°C IP-50)	320	320	320	320	330	320	310	280	320	320	320	N/A
Temperature Range (°C)	-40 to +125	-35 to +130	-45 to +130	-35 to +130	-45 to +130	-55 to +130	-50 to +130	-25 to +300	-50 to +250	-50 to +130	-45 to +130	-40 to +130
Mechanical Lubrication	Good	Good	Good	Excellent	Excellent	Excellent	Excellent	Good	Good	Excellent	Excellent	Good
Electrical Performance	Excellent	Good	Good	Excellent	Excellent	Excellent	Excellent	Good	Good	Fair	Excellent	Good
Oil Version Available	SOA	SOB/EML	No	SOB/EML	No	No	No	EOF	No	No	No	N/A
Plastics Compatibility Polycarbonate*	Poor	OK	OK	OK	Excellent	Excellent	OK	Excellent	Poor	Excellent	Excellent	OK
Plastics Compatibility ABS*	Poor	OK	OK	OK	Excellent	Excellent	OK	Excellent	Poor	Excellent	Excellent	OK

*Compatibility may differ from quoted results - Testing should always take place prior to production.
12.5 & 25 Kg drums are straight sided and therefore suitable for automatic dispensing.
12.5Kg: 254mm inside diameter x 330mm height 25Kg: 305mm inside diameter x 406mm height.

Polyurethane Resins

Polyurethane Resins	UR5041	UR5048	UR5044	UR5528	UR5562	UR5547	UR5097	UR5604	UR5608
Base Material	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane	Polyurethane
Colour (Mixed System)	Black	Clear	Dark Blue	Black	Water White	Black	Black	Black	Black
Density Part A - Resin (g/ml)	1.17	0.93	1.51	1.02	1.01	1.69	1.53	1.62	1.65
Density Part B - Hardener (g/ml)	1.24	1.24	1.34	1.24	1.06	1.23	1.24	1.21	1.24
Cured Density (g/ml)	1.18	0.95	1.49	1.07	1.02	1.60	1.49	1.54	1.59
Part A Viscosity (mPa s @ 23ºC)	9300	1200	10000	3500	1700	24000	30000	20000	20000
Part B Viscosity (mPa s @ 23ºC)	55	60	370	150	50	230	50	50	50
Mixed System Viscosity (mPa s @ 23ºC)	2500	980	3400	2000	300	4000	6000	2000	2000
Mix Ratio by Weight (by Volume)	3.64:1 (3.85:1)	14.05:1 (18.58:1)	13.44:1 (11.96:1)	2.37:1 (2.87:1)	2.24:1 (2.34:1)	5.52:1 (4.01:1)	7.52:1 (6.07:1)	5.21:1 (3.88:1)	5.18:1 (6.93:1)
Usable Life (Minutes @ 23°C)	20	20	25	20	17	20	20	40	30
Gel Time (Minutes @ 23°C)	60	40	40	35	22	50	80	90	60
Cure Time (Hours @ 23°C/60°C)	24/4	24/4	24/3	24/5	24/4	24/3	24/4	24/3	24/3
Shore Hardness	A85	A12	A40	D57	A95	A85	A85	A75	D50
Thermal Conductivity (W/mK)	0.25	0.20	0.25	0.245	0.20	0.35	0.65	0.45	0.45
Temperature Range (°C)	-60 to +125	-60 to +100	-60 to +120	-50 to +125	-40 to +120	-50 to +120	-40 to +110	-40 to +130	-40 to +100
Max Temperature Range (Short Term °C/Mins)	+130	+100	+130	+130	+130	+125	+130	+155	+110
Dielectric Strength (kV/mm)	20	18	17.7	25	11	14	18	18	18
Volume Resistivity (ohm-cm)	10^{15}	10^{14}	10^{10}	10^{14}	10^{14}	10^{14}	10^{14}	10^{14}	10^{14}
Flame Retardency	No	No	Yes	No	No	No	Yes	Yes	Yes
UL Approval	No	No	UL94 V-0	No	No	No	UL94 V-0	UL94 V-0	UL94 V-0
RoHS Compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Special Property	Water Resistance	Soft, Low Stress	Soft, Re-enterable	Tough, High Adhesion	Optically Clear	Excellent Adhesion	Thermally Conductive	Tough, Flexible	Tough, Rigid

Electrolube offers an extensive range of bespoke resins

Epoxy Resins

Epoxy Resins	ER2001	ER2183	ER2195	ER2074	ER2188	ER 1450	ER1451	ER2218
Base Material	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy	Epoxy
Colour (Mixed System)	Black	Black	Black	White	Black	White	Clear	Black
Density Part A - Resin (g/ml)	1.82	2.13	1.82	2.25	1.82	1.11	1.09	1.22
Density Part B - Hardener (g/ml)	0.93	0.93	0.94	0.94	0.92	0.96	0.96	0.96
Cured Density (g/ml)	1.73	1.95	1.67	2.09	1.68	1.1	1.05	1.16
Part A Viscosity (mPa s @ 23°C)	150000	80000	150000	200000	150000	250	250	800
Part B Viscosity (mPa s @ 23°C)	25	25	500	58	200	200	200	400
Mixed System Viscosity (mPa s @ 23°C)	9000	5000	9000	16700	9000	300	300	500
Mix Ratio by Weight (by Volume)	17.45:1 (8.94:1)	12.78:1 (5.58:1)	9.77:1 (5.04:1)	17.31:1 (7.23:1)	10.97:1 (5.36:1)	2.51:1 (2.17:1)	2.41:1 (2.10:1)	3.58:1 (2.282:1)
Usable Life (Minutes @ 23°C)	150	120	240	90	60	15	15	40
Gel Time (Hours @ 23°C)	5	7	10	5	2.5	25	25	50
Cure Time (Hours @ 23°C/60°C)	24/4	24/4	24/4	24/4	24/2	24/2	24/2	24/4
Cure Time (Minutes @ 100°C)	30	60	60	60	20	20	20	30
Thermal Conductivity (W/mK)	0.55	1.1	0.45	1.26	0.45	0.25	0.25	0.28
Temperature Range (°C)	-40 to +130	-40 to +130	-40 to +130	-40 to +130	-40 to +120	-50 to +150	-50 to +150	-50 to +150
Max Temperature Range (Short Term °C / 30 Mins)	+150	+150	+150	+150	+140	+160	+160	+245*
Dielectric Strength (kV/mm)	10	10	10	10	10	10	10	10
Volume Resistivity (ohm-cm)	10^{15}	10^{15}	10^{15}	10^{15}	10^{14}	10^{15}	10^{15}	10^{14}
Shore Hardness	D85	D90	D80	D80	D85	D50	D50	D55
Flame Retardency	Yes	Yes	Yes	Yes	Yes	No	No	Yes
UL Approval	UL94-V0	Meets	UL94-V0	Meets	UL94-V0	No	No	Meets
RoHS Compliant	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Specialist Property	General	Low Viscosity	Tough, High Adhesion	Thermally Conductive	DDM Free	Very Low Viscosity	Clear, Very Low Viscosity	Very Low Viscosity, Flame Retardant

Electrolube offers an extensive range of bespoke resins

* for 5 minutes