

CollTech



**Cutting Edge Adhesives
and Curing Systems**

CollTech



CollTech (Dongguan) Factory

Company Profile

CollTech Group was established in Germany in 2006 and expanded to China in 2013. CollTech Group is committed to research, development, production, and marketing of advanced adhesives for electronics, automotive, medical, industrial, and other applications.

CollTech Group is a multicultural team of highly specialized R&D scientists with PhD and Master's degrees, and experienced marketing & sales experts.

CollTech provides high quality products, tailored technical support and service for our customers.

CollTech's products and services cover a wide range of high-end applications. With established international market, CollTech looks forward to a long-term cooperative relationship with customers all over the world.

Company Profile



■ Vision

Providing global customers with high performance, quality, reliable and environmentally friendly adhesive products.

■ Core Values

Passion, pragmatism, innovation and dedication.

■ Quality

Promises, excellence, continuous improvement, never give up.

■ Environmental Policy

Protecting the environment and maintaining ecological balance as well as promoting the sustainable development of society and economy.

R & D Centre



Laboratory Equipment



PCT



Thermal Shock Chamber



Mechanical Testing System



Temperature and Humidity Test Chamber



Asymtek Jet Dispensing Machine



DSC



TMA



FTIR



XRF

Product Properties and Applications

One Part Epoxy Adhesives

Products	Appearance	Viscosity [mPa·s]	UV Curing Condition [mJ/cm ²]	Thermal Curing Condition	Hardness [Shore D]	Shear Strength [MPa]	Typical Property & Application
EW 6308	Off-white	35,000	/	30min@150°C	90	25	High Tg, high bonding strength, used in gold bonding, Pin protection, resistance to Pb-free reflow
EW 6312	Light yellow	5,800	/	30min@80°C	80	21	Low temperature curing, high bonding strength, used in PA / glass /metal bonding
EW 6320	Black	9,000	/	10min@130°C	75	25	Component reinforcement, used in FPC, PCB
EW 6326	Black	36,000	/	30mins@60°C	75	15	Low temperature curing, high thixotropy, used in metal/magnet/ FPC bonding
EW 6328	Black	36,000	/	30mins@80°C	78	21	Low temperature curing, high bonding strength, used in magnet/ stainless steel bonding
EW 6335	Blue	300	3,000	/	50	14	Low viscosity, used for coating or bonding
EW 6336	Blue	32,000	3,000	20min@100°C	75	18	Fast curing, high thixotropy, used in component protection
EW 6339	Transperant	500	3,000	30min@90°C	75	12	Low shrinkage, optical transparent, used in optical bonding, potting

Two Part Epoxy Adhesives

Products	Appearance [A/B]	Viscosity [mPa·s]	Mixture Ratio By Weight	Setting Time [Min]	Tack Free Time	Hardness [Shore]	Shear Strength [MPa]	Typical Property & Application
EW 6609	White / Black	10,000	2:1	45min	4hrs	80D	/	Thermal conductivity potting, thermal conductivity 0.8 W/ m·k
EW 6610	Light yellow / Transparent	3,000	1:1	1hrs	4hrs	65A	17	Low hardness, low shrinkage, flexible potting
EW 6611	Black / Black	1,300	2:1	1hrs	4hrs	90D	/	Used in PCB or power supply , sealing , potting
EW 6615	Black / White	18,000	2:1	45min	4hrs	65D	15	Low shrinkage, thixotropic , good temperature impact resistance
EW 6615H	Black / Grey	32,000	2:1	45min	4hrs	75D	10	Low shrinkage, high thixotropic, good temperature impact resistance
EW 6619	Transparent / Transparent	11,000	1:1	20min	40min	75D	10	Fast curing, transparent potting
EW 6621	Transparent / Transparent	600	4:1	7hrs	14hrs	85D	11	Low viscosity, transparent potting
EW 6625	Transparent / Transparent	1,500	2:1	30min	2hrs	80D	15	Low viscosity, transparent potting
EW 6627	Milky / Milky	Paste	2:1	2hrs	4hrs	75D	15	Good toughness, high thixotropic potting
EW 6650	Translucent / Translucent	15,000	2:1	45min	4hrs	75D	14	Fast curing, electrical component potting
EW 6657	Transparent / Transparent	5,000	2:1	60min	4hrs	85D	14	Transparent, high hardness potting
EW 6658	Milky / Transparent	35,000	4:1	60min	30min@140°C	85D	25	High thixotropy, cold oil resistance, structural bonding

Acrylate UV Adhesives

Products	Appearance	Viscosity [mPa·s]	UV Curing Condition [mJ/cm ²]	Hardness [Shore]	Shear Strength [MPa]	Typical Property & Application
PW 1008	Transparent	250	1,500	80D	6	Medical grade adhesive, plastics bonding (ABS, PC, PVC, PETG)
PW 1081	Transparent	1,000	3,000	65A	7	Medical grade adhesive, plastics bonding and sealing (ABS, PC, P6, PEEK)
PW 1023	Semi-transparent	8,500	1,500	45D	8	Glass / metal / plastic bonding and sealing, automotive, optical applications
PW 1033	Grey	30,000	3,000	80D	15	Low water absorption, high temperature resistance, precision bonding and sealing
PW 1206	Transparent	12,000	1,500	78D	7	Plastics bonding and sealing (ABS, PC, PVC, PETG), used for loudspeaker.
PW 1250	Transparent	3,000	1,500	78D	15	Plastics bonding and sealing (ABS, PC, PVC, PETG), high bonding strength of PC.
PW 1292	Transparent	1,500	3,000	77D	6	Using on different surfaces, excellent temperature resistance, chemical resistance, used for sensitive components bonding, sealing, protection
PW 2057	Transparent	600	3,000	68D	25	High shear strength, glass / metal / plastic structure bonding
PW 2133	Grey	30,000	3,000 (UV+ anaerobic)	80D	15	Low water absorption, high temperature resistance, precision bonding and sealing
PW 1066	Transparent	6,000	3,000	87D	18	Versatility, high hardness, used in PC / PC, glass / aluminum bonding
PW 1164	Transparent	2,000	3,000	72D	12	High toughness bonding, good impact resistance and high temperature performance, used in glass / aluminum / stainless steel structural bonding
PW 1209	Transparent	1,000	3,000	84D	12	Top coat, high transparency, glass / metal bonding, sealing, potting, surface protection
PW 1218	Transparent	50	3,000	80D	7	High transparency, glass / metal bonding, sealing, potting, surface protection
PW 1304	Transparent	300	3,000	68D	6	glass / metal / plastic bonding, waterproof
PW 1400	Semi-transparent	1,200	1,500	82D	15	High bonding strength, glass / Al bonding
PW 1422	Black	900	3,000mJ/cm ² + 30min@160°C	75D	10	Low viscosity, good adhesion on stainless steel, used in screw sealing
PW 1435	Transparent	5,600	2,000	65D	12	Good flexibility, used in glass / Al bonding, sealing
PW 1436	Transparent	3,700	2,500	65D	7	Good flexibility, used in PC / PMMA bonding, FPC reinforcement
PW 1442	Transparent	14,000	1,500	60D	12	Good flexibility, used in PC / stainless steel bonding, LED / component protection
PW 1446	Blue	55,000	3,000	35A	12	Good flexibility, high elongation, used in PC / ABS sealing, bonding
PW 1448	Blue	9,500	1,500	75D	2	Used in glass bonding, peeled by boiling water
PW 1451	Transparent	1,000	3,000	65D	7	High transparency and low viscosity, used in PC and PET optical component bonding
PW 1465	Transparent	700	2,500	32D	5	Good flexibility, used in PET / PC bonding
PW 1475	Semi-transparent	6,000	2,000	65D	10	Good flexibility, used in PC / PMMA / FPC bonding
SW 7022	Opaque	8,000	3,000 (UV+ moisture)	80D	5	Pin-sealing, electronic component protection (PCB), moisture resistance, environment resistance
SW 7037	Grey	17,000	3,000 (UV+ moisture)	80D	5	Glass / metal / plastic bonding, optical alignment, high Tg, low shrinkage, low CTE
PW 1470	Red	15,000	2,500	82A	6	Good flexibility, used in miniature speaker centre
PW 1471	Red	15,000	2,500	2500	2	Good flexibility, used in wires fixation of miniature speaker
PW 1486	Transparent	6,500	2,000	60D	15	High strength and tenacity, good adhesion on PC. Used in camera frame bonding and fixed.

Product Properties and Applications

Underfill Materials

Products	Appearance	Viscosity [mPa·s]	Curing Condition	Hardness [Shore D]	Tg [°C]	Typical Property & Application
EW 6060	Black	3,700	10min@130°C	85	55	Halogen free, general application, reworkable
EW 6061	Black	1,000	12min@120°C	82	82	Halogen free, high bonding strength, low shrinkage
EW 6064	Black	370	10min@130°C	85	55	Halogen free, good penetrating capillarity, reworkable
EW 6066	Black	370	8min@130°C	85	110	Halogen free, high Tg, good penetrating capillarity, fast curing speed
EW 6360	Black	6,500	30mins@150°C	90	180	Halogen free, high Tg, low CTE, good penetrating capillarity, used for flip chip underfill

Hot Melt Adhesives

Products	Chemical Type	Appearance	Viscosity [mPa·s] (110°C)	Pre-heat temperature (°C)	Processing Temperature (°C)	Open Time (min)	Tensile Strength [MPa]	Break Elongation [%]	Typical Property & Application
CT 5605	Reactive polyurethane	White	4,000-6,000	90-100	90-110	2-5	>7	> 300	Fast curing speed, used for electronic components bonding, reworkable
CT 5606	Reactive polyurethane	White	4,000-6,000	90-110	90-120	2-5	>8	> 300	Fast curing speed, used for electronic components or glass bonding
CT 5607	Reactive polyurethane	White	4,000-6,000	90-110	90-120	5-8	>8	> 350	Structural bonding for metal, plastic and other substrate, used in speaker PVC cone
CT 5608	Reactive polyurethane	White	8,000-14,000	90-110	90-120	2-5	>8	> 350	Structural bonding for metal, plastic, used in LCD plastic panels, automotive lightings

Coating Materials

Products	Chemical Type	Appearance	Viscosity [mPa·s]	Curing Method	Tack Free Time	Thickness [mils]	Typical Property & Application
N-Coat 9300	Acrylic	Transparent	250	Solvent	15min@RT	2-4	Excellent yellowing resistance
N-Coat 9360	Acrylic	Black / blue	300	Solvent	5-10min@RT	2-4	Fast tack-free, used in LCM protection
N-Coat 9368	Elastomer	Blue	54000	Solvent	20min@160°C	1-3	TP insulation protection
N-Coat 9560	Alkyd resin	Light yellow	75	Oxygen curing	20min@RT	1-3	Excellent electrical properties
N-PU 5100	Polyurethane	Transparent	300	Moisture curing	30min@RT	2-4	Used in outdoor
N-PU 5103	Polyurethane	Transparent	250	UV+Moisture curing	2000mj/cm ²	2-6	Odorless, dual cure
PW 2500	Acrylic	Transparent	1500	UV	1500mj/cm ²	10-15µm	Tube coating, excellent water resistance
PW 2501	Acrylic	Transparent	900	UV	300mj/cm ²	2-8µm	PET hardener, good wear-resistance
HW 9590	Alkyd resin	Grey	2000-2500	RT	15-20min	2-4	Thermal conductivity 0.6 (W/m·k)



Plastic Bonding



Conformal Coating



FPC Protection

Thermal Conductive Adhesives

Products	Chemical Type	Appearance	Curing Condition	Hardness [D]	Thermal Conductivity [W/m·k]	Typical Property & Application
HW 9905	Acrylic	Beige	5min@RT	60	0.8	Curable thermal conductive primer
PW 2550	Acrylic	Semi-transparent	2000mJ/cm ²	55	0.9	UV + thermal curing
EW 6608	Epoxy	Grey	5min@120°C	70	1.2	High bonding strength, high thermal conductivity
EW 6345	Epoxy	Grey	10min@130°C	80	2.0	High bonding strength, high thermal conductivity

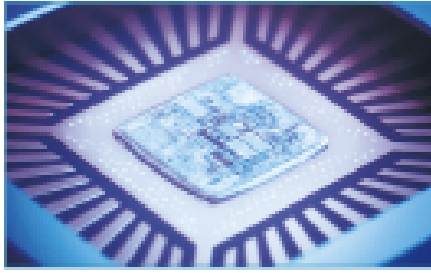
Conductive Adhesives

Products	Appearance	Viscosity [mPa·s]	Resistivity [Ω·cm]	Heat Curing Condition	Hardness [Shore D]	Shear Strength [MPa]	Typical Property & Application
EW 6346	Grey	18,000	10 ⁻³	50min@100°C	70	20	High conductivity, low viscosity, good adhesion on metal, PCB, glass, used in conducting, bonding and sealing
EW 6349	Grey	900	10 ⁻³	20min@160°C	65	18	High conductivity, low viscosity, good adhesion on metal, PCB, glass, used in conducting and sealing
EW 6350	Grey	100,000	10 ⁻⁴	20min@130°C	75	20	High conductivity, high thixotropy, good adhesion on metal, PCB, glass, used in conducting and bonding
EW 6355	Grey	50,000	10 ⁻⁴ - 10 ⁻³	50min@80°C	70	20	High conductivity, low curing temperature, good adhesion on metal, PCB, glass, used in conducting, bonding and sealing

Thermal Greases

Products	Appearance [A/B]	Density [g/cm ³]	Penetration [25°C, 1/10mm]	Volatility [200°C*8h]	Temperature Rating Guide [°C]	Thermal Conductivity [W/m·k]	Typical Property & Application
N-Sil 8608	White / Grey	2.0	280-320	≤1.5%	-50~+200	0.8	Good dispensing speed, used for thermal conductive and gap filler
N-Sil 8615	White / Grey	2.6	280-320	≤1.5%	-50~+200	1.5	Power, TV, LED
N-Sil 8620	White / Grey	2.8	280-320	≤1.5%	-50~+200	2	High-power LED, thermoelectric device, MOS tube and radiator
N-Sil 8630	White / Grey	3	260-280	≤1.5%	-50~+200	3	CPU, semiconductor and heat sink
N-Sil 8640	White / Grey	3	260-280	≤1.5%	-50~+200	4	CPU and heat sink, interfacial thermal resistance

Product Properties and Applications



Thermal Conductive



Component Potting



Lamp Sealing

■ Thermal Gels

Products	Appearance	Density [g/cm ³]	Volatility [200°C*8h]	Volume Resistance [Ω·cm]	Thermal Impedance [°C-in/w]	Temperature Rating Guide [°C]	Thermal Conductivity [W/m·k]	Typical Property & Application
N-Sil 8715	Pink	2.5	≤0.5%	≥2.0×10 ¹⁵	0.06	-50~+200	1.5	Integrated chips, good plasticity
N-Sil 8725	Pink	2.9	≤0.5%	≥2.0×10 ¹⁵	0.029	-50~+200	2.5	Power modules
N-Sil 8735	Pink	3.2	≤0.5%	≥2.0×10 ¹⁵	0.03	-50~+200	3.5	Power modules, computer and accessories
N-Sil 8740	Pink	3.2	≤0.5%	≥2.0×10 ¹⁵	0.03	-50~+200	4.0	Power modules, computer and accessories

■ Silicone Potting Materials

Products	Appearance [A/B]	Density [g/cm ³]	Viscosity after Mixing [mPa·s]	Curing Method	Mixture Ratio	Setting Time [Min]	Fixture Time [Min]	Hardness [A]	Thermal Conductivity [W/m·k]	Typical Property & Application
N-Sil 8201	Transparent / Transparent	1.05	1,000-2,000	Addition	1:1	30-80	120	25	0.2	Transparent potting
N-Sil 8206	White / Grey	1.58	2,800-3,800	Addition	1:1	20-40	30-80	55	0.6	Thermal conductive potting
N-Sil 8210	White / Grey	1.78	3,500-4,500	Addition	1:1	20-40	30-80	60	1.0	Thermal conductive potting
N-Sil 8215	White / Grey	2.1	9,500-12,000	Addition	1:1	20-40	30-80	65	1.5	Thermal conductive potting
N-Sil 8220	White / Pink	2.6	13,000-16,000	Addition	1:1	40-60	50-90	75	2	Applied in power
N-Sil 8275	Pink / Pink	1.78	40,000-50,000	Addition	1:1	/	150°C*30min	55	0.5	High temperature conductive thermal potting
N-Sil 8276	Grey / Grey	1.88	200,000-300,000	Addition	1:1	/	150°C*30min	55	0.6	High temperature bonding and sealing
N-Sil 8700	Transparent / Transparent	1.05	800-1,000	Addition	1:1	120	180	400	0.2	Transparent potting, repairing



Thermal Conductive and Potting



LED Encapsulation



Phone Sealing

Silicone Sealants

Products	Viscosity [mPa·s]	Appearance	Tack Free [min]	Curing Method	Curing Speed [25°C/24h]	Hardness [A]	Tensile Strength [MPa]	Break Elongation [%]	Typical Property & Application
N-Sil 8112	Semi-flow	Black / White	3-15	Condensed moisture	3mm	45	3.5	200	Fast tack-free, used in PC / ABS / Al bonding
N-Sil 8113	Semi-flow	Translucent	3-15	Moisture Curing	3mm	30-40	1.5	300	Used for gap filler, ABS/PC/Al bonding and sealing
N-Sil 8552	Semi-flow	Black	3-15	Condensed moisture	3mm	50	4.5	250	Fast tack-free, high strength, RoHS, Reach
N-Sil 8135	Paste	Black / White	3-15	Condensed moisture	3mm	45	2.0	100	Quickly locating, used in T8 lamp, PCB, 0.6 W/m-k
N-Sil 8533	Paste	Black / White	3-15	Condensed moisture	3mm	40	1.5	300	Reinforcement of FPC
N-Sil 8580	Paste	Black / White	3-15	Condensed moisture	3mm	55	2.0	100	Reinforcement, sealing / UL94 V0
N-Sil 8332	Paste	Semi-transparent	/	/	150°C*30min	60	1.5	30	Component reinforcement, mixed with magnetic powder
N-Sil 8336	Paste	Grey	/	Addition curing	150°C*30min	60	2.0	75	High temperature potting, sealing
N-Sil 8337	Paste	Red	/	Addition curing	150°C*30min	55	1.8	70	High temperature potting, sealing

Polyurethane Sealants

Products	Viscosity [mPa·s]	Appearance	Tack Free [min]	Curing Method	Curing Speed [25°C/24h]	Hardness [A]	Tensile Strength [MPa]	Break Elongation [%]	Typical Property & Application
N-PU 5105	Paste	Black / White	5-15	Moisture Curing	4mm	35	1.8	450	Flexible sealing
N-PU 5107	Paste	Black / White	5-15	Moisture Curing	4mm	50	2.8	400	Metal, plastic / bonding, sealing / trucks, trains, ships, ventilation pipe

Product Properties and Applications

Adhesives for Structural Bonding

Products	Chemical Type	Appearance [A/B]	Viscosity [mPa·s]	Mixture Ratio	Setting Time [Min]	Hardness [D]	Shear Strength [MPa]	Typical Property & Application
AW 2900	Acrylic	Green / pink	5,500	1:1	3-5	70	26	General application, used in glass / plastic / metal bonding
AW 2901	Acrylic	Orange / pink	4,500	1:1	3-5	70	25	Fast curing, low odour, low viscosity
AW 2902	Acrylic	Light yellow / Blue	15,000	1:1	5-10	70	30	Very low odor, high temperature resistance, used in magnet, nickel-plated galvanized materials, plastic bonding, excellent impact resistance, high temperature and humidity resistance
AW 2903	Acrylic	Brown / light green	6,000	1:1	3-5	70	32	Fast curing, high temperature application
AW 2904	Acrylic	Yellow / blue	15,000	1:1	3-5	70	21	Fast curing, used in glass / plastic / metal bonding
AW 2915	Acrylic	Green / Pink	7,000	1:1	3-5	70	29	Excellent thermal resistance and oil resistance, used in plastic / metal bonding
AW 2916	Acrylic	White / light green	12,000	1:1	5-10	70	25	Low odour / high viscosity
AW 2920	Acrylic	White / dark blue	20,000	10:1	3-5	70	25	Low odor / excellent comprehensive properties
PW 2990	Acrylic	Off-white	Paste	/	2	60	18	Fast curing, curing with primer

Instant Adhesives

Products	Appearance	Viscosity [mPa·s]	Setting Time [s]	Shear Strength [MPa]	Typical Property & Application
CT 7250	Colourless transparent	750	5-30	15	Fast curing, used in metal, rubber, plastic, leather bonding, special for silicone rubber, EPDM bonding.
CT 7250L	Colourless transparent	250	5-30	15	Fast curing, used in metal, rubber, plastic, leather bonding, special for silicone rubber, EPDM bonding.
CT 7250H	Colourless transparent	2,000	10-35	20	High viscosity, fast curing, used in metal, rubber, plastic, leather bonding, special for silicone rubber, EPDM bonding.
CT 7251	Colourless transparent	20	10-20	20	Fast curing, used in metal, rubber, plastic, wood, ceramic, leather bonding.
CT 7251H	Colourless transparent	50	10-20	20	Fast curing, used in metal, rubber, plastic, wood, ceramic, leather bonding.
CT 7253	Colourless transparent	2,000	5-20	20	High viscosity, fast curing, used in metal, glass, rubber, plastic, ceramic, leather bonding.
CT 7255	Colourless transparent	2,500	10-50	17	High viscosity, good flexibility, low odor, very low whitening, high temperature resistance, used in metal, rubber, plastic bonding.
CT 7255B	Black	2,500	10-40	28	High viscosity, high strength, good flexibility, very low whitening, high temperature resistance, used in metal, rubber, plastic bonding.
CT 7256	Colourless transparent	2,500	10-40	28	High viscosity, high strength, good flexibility, low odor, very low whitening, high temperature resistance, used in metal, rubber, plastic bonding.
CT 7257	Colourless transparent	1,000	10-20	15	High viscosity, high strength, low odor, very low whitening, used in metal, rubber, plastic bonding.
CT 7258	Colourless transparent	5	5-40	15	Low viscosity, low odor, very low whitening, used in metal, glass, rubber, plastic, leather bonding.
CT 7258H	Colourless transparent	80	5-40	15	Low odor, very low whitening, used in metal, glass, rubber, plastic, leather bonding.
CT 7260	Colourless transparent	2	5-15	15	Low viscosity, fast curing, used in metal, glass, rubber, plastic, wood, leather bonding, special for silicon rubber, EPDM bonding.
CT 7261	Colourless transparent	100	5-15	18	Fast curing, used in paper, wood, leather, cloth bonding, special for EPDM bonding.

Product Applications

AUTOMOTIVE

Bonded parts in the automotive industry require durable, mechanical, chemical and temperature resistant adhesives. The production cycle times are short, the quality standards are high.



CollTech adhesive products are used for:

- ◆ Sensors
- ◆ Sound damping
- ◆ Glass bonding
- ◆ Protection of electronic parts

CollTech adhesives meet following challenges:

- ◆ Fast curing
- ◆ Temperature resistant from -40°C ~ +150°C
- ◆ Oil and vibration resistant
- ◆ Weatherproof
- ◆ Very good adhesion on composites, PA, PBT, PPS, PC, ABS, steel, copper, aluminium, nickel, silver
- ◆ Consistent quality
- ◆ Robust and reliable

MEDICAL DEVICE ASSEMBLY

Using transparent plastics, disposable medical devices are manufactured at a high production rate. Therefore, fast curing, reliable, and optically clear adhesives are needed for the assembly.



CollTech adhesive products are used for:

- ◆ Needle / syringe bonding
- ◆ Tube sets and fittings
- ◆ Reservoir and housing assembly
- ◆ Filter bonding
- ◆ Catheter bonding
- ◆ Respiratory device assembly
- ◆ Medical electronics

Product Applications

OPTOELECTRONICS

Adhesives with low stress and high strength are used in lens bonding, lens or prism positioning, LED bonding or fiber-optic assembly. CollTech optical grade adhesives for optoelectronics are UV-resistant and waterproof with low shrinkage and high refractive index, where required.



CollTech adhesives meet following challenges:

- ◆ Fast cure on demand
- ◆ High refractive index, where required
- ◆ Thermally conductive, where required
- ◆ Temperature resistant from -40°C ~ +150°C
- ◆ Impact resistant
- ◆ Weatherproof
- ◆ Very low shrinkage on cure
- ◆ Low outgassing
- ◆ Very good cohesion strength coupled with toughness
- ◆ Consistent quality
- ◆ Robust and reliable

CONSUMER ELECTRONICS



CollTech adhesive products are used for:

Flexible Glob-Top on FPCB

- ◆ Excellent adhesion on FPCB and coated surfaces
- ◆ Tailored flowing ability
- ◆ Dual curing UV/thermal curing
- ◆ Flexible
- ◆ Detectable
- ◆ High reliability
- ◆ Compatible with flux residue
- ◆ High ion purity

Special Underfiller on FPCB

- ◆ Excellent adhesion on FPCB
- ◆ Tailored flowing ability
- ◆ Thermal curing
- ◆ Flexible
- ◆ High reliability
- ◆ Compatible with flux residue
- ◆ High ion purity

Bonding and Reinforcement

- ◆ Fast curing
- ◆ Excellent adhesion on FPCB coated surfaces
- ◆ High strength after curing
- ◆ Tailored flowing ability for different applications
- ◆ Compatible with flux residue
- ◆ Curable by low-temperature reflow process
- ◆ High ion purity

DISPLAYS

Touch screens, flat panel displays, liquid crystal displays and flexible displays are bonded with crystal clear and highly flexible adhesives. Optically clear CollTech adhesives for displays are: extremely flexible and elastic, UV-resistant, waterproof, gastight and have a very low shrinkage on cure.



CollTech adhesives meet following challenges:

- ◆ Fast cure on demand
- ◆ High optical clarity, invisible after cure
- ◆ Temperature resistant from -40°C ~ +70°C
- ◆ Impact resistant
- ◆ Weatherproof
- ◆ Very low shrinkage on cure
- ◆ Airfree
- ◆ Very flexible coupled with a good cohesion strength
- ◆ Consistent quality
- ◆ Robust and reliable

GLASS BONDING

CollTech Group, as a specialist for UV adhesives, supplies innovative adhesive products for different bonding applications of glass. CollTech adhesive products in the field of glass is mainly used in automotive safety glass, bullet proof glass, optical lens, room decoration glass, glass crafts, glass frame, etc..



CollTech adhesive products are used for:

Glass/Glass Bonding

- ◆ Highly fluid
- ◆ Solvent free
- ◆ 100% transparent
- ◆ Capillary flow possible
- ◆ Temperature and UV resistant

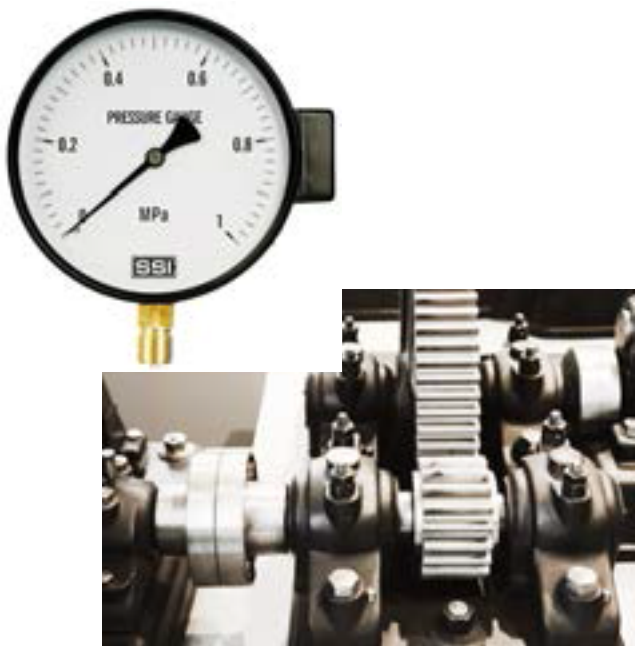
Big Surface Glass/Glass Bonding

- ◆ Low curing shrinkage
- ◆ 100% transparent
- ◆ Resistant to yellowing
- ◆ Flexible
- ◆ Solvent free
- ◆ Temperature and UV resistant

Product Applications

MECHANICAL ENGINEERING

General mechanical engineering requires the application of adhesive technology as an alternative or addition to welding and riveting processes. The adhesive technology offers design freedom, additional sealing and the additional functionalisation of bonded joints.



CollTech adhesive products are used for:

- ◆ Plastic bonding
- ◆ Metal and glass bonding
- ◆ Joining of different substrates
- ◆ Temporary or long-term fixation processes
- ◆ Anti-theft protection
- ◆ Thick coatings (Braille)

RENEWABLE ENERGIES

Renewable Energies are based on energy delivering systems which are driven by non-fossil fuels. Examples for alternative energies are photovoltaics, fuel cells and wind energy. CollTech supplies excellent adhesive products for new energy systems to meet customer's requirement.

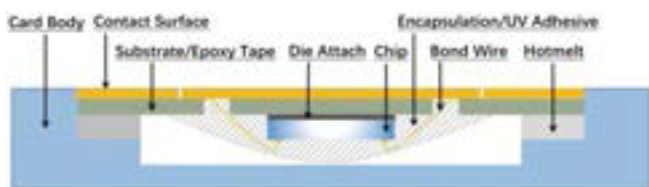


CollTech adhesives meet following challenges:

- ◆ Fast curing
- ◆ Temperature resistant from -40°C ~ $+150^{\circ}\text{C}$
- ◆ High chemical resistance, even against Phosphoric or Sulphuric acid
- ◆ Weatherproof
- ◆ Gas barrier against hydrogen or water vapour
- ◆ Bonding and Sealing properties
- ◆ Gap filling
- ◆ Consistent quality

SMART CARD

For the manufacturing of smartcard modules, the CollTech Group supplies UV and thermal curing adhesives based on special epoxy resins with high ion purity.



CollTech adhesive products are used for:

Glob-Top Encapsulation

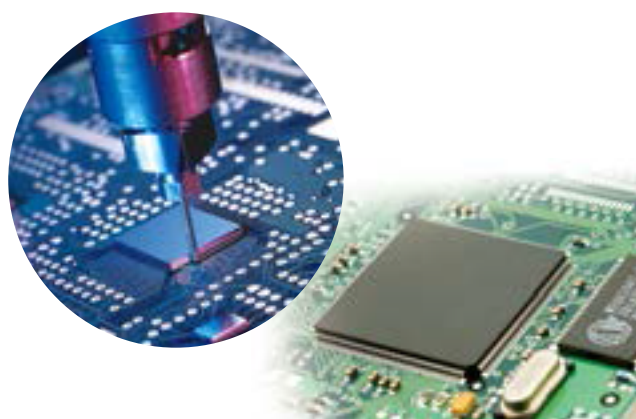
- ◆ Fast curing with discharge UV lamp or LED UV lamp
- ◆ Excellent dispensing and flowing properties
- ◆ Excellent adhesion on epoxy tapes and coated surfaces
- ◆ Optimised flexibility and toughness
- ◆ High reliability during temperature change

Dam&Fill Encapsulation

- ◆ Different dam materials from flexible to hard
- ◆ Tailored fill material
- ◆ Same chemical basis for dam and fill material
- ◆ Excellent dispensing properties of dam material

SMT

Adhesives have found various applications in SMT (Surface Mounting Technology) processes. CollTech Group supplies customized adhesive products to meet different requirements.



CollTech adhesive products are used for:

SMA (Surface Mount Adhesive)

- ◆ Electrically insulating
- ◆ Excellent green (wet) strength
- ◆ High viscosity for dispensing dots having high aspect ratios
- ◆ High shear thinning and flow under pressure with quick recovery and good thixotropic properties
- ◆ Ability to retain print or dot height. Low moisture absorption. Noncorrosive
- ◆ High Tg
- ◆ Fast curing per reflow
- ◆ Halogen-free, solvent-free

Underfiller

- ◆ Low CTE
- ◆ Capillary flow with low viscosity
- ◆ Halogen-free
- ◆ Solvent-free
- ◆ Temperature resistance
- ◆ High Tg
- ◆ Curing per reflow
- ◆ Low moisture absorption, noncorrosive

CollTech

Enterprise Culture

Passion

Pragmatism

Innovation

Dedication





The logo for CollTech, featuring the word "CollTech" in a bold, blue, sans-serif font. The background of the entire page is a stylized world map composed of horizontal lines, with a blue gradient overlaying the map.

CollTech

CollTech GmbH
Im Eichwald 1
65599 Dornburg
Germany

CollTech (Dongguan)
Bonding Technology Co., Ltd.
NO. 336, Shipai Road East,
Dongguan,
P.R. China 523330

www.colltech.de

Wellmann Technologies GmbH
Hauptstraße 96
67159 Friedelsheim
Germany

CollTech (Shenzhen)
Bonding Technology Co., Ltd.
Room 1101, Buiding A , Finance Harbor,
NO.1003, Xin'an 6th Road, Bao'an District
Shenzhen, P.R. China 518101

email: info@colltech.de

CollTech Corporation, Inc.
19925 Stevens Creek Blvd., Suite 100,
Cupertino, CA 95014
USA

CollTech Korea Co., Ltd
Gwangmyeong SK Techno-park
A-dong 807-1, 60, Haan-ro,
Gwangmyeong-si, Gyeonggi-do,
Republic of Korea