ENCAPSULATION SOLUTIONS

HumiSeal®

ENGINEERED ENCAPSULATION SOLUTIONS FOR DEMANDING APPLICATIONS



POTTING FOR ELECTRONIC APPLICATIONS

Encapsulation solutions for tomorrow's applications

full potting applications employed in characteristics, and chemical resistant today's electronics and other industries. requirements. Our Encapsulation Solutions and tomorrow's applications.

Solutions takes into consideration customer provide a variety of process improvements, application needs with variety of working which may increase your productivity via UVlife, an assortment of cure cycles, and cure gellable encapsulation or complete fast UV cure. methods, including room temperature, heat, The desirability of protection against mechanical RTV, and UV-light. Engineered from epoxy, shock or thermal excursions may lead you to the urethane, and acrylate chemistries, our portfolio use of low modulus and highly flexible urethane of encapsulating liquids satisfies the majority materials. Protection against harsh chemicals of applications, while our rapid development will create the need to use a highly cross-linked process compliments the need for customized system such as epoxy or acrylated urethane. formulations.

Today's markets require many varieties of potting materials. HumiSeal Encapsulation

HumiSeal Encapsulation Solutions Solutions meet thermomechanical, are engineered liquids for partial or electrical protection, aesthetic **These products complement our prominent** are found in applications, such as photovoltaics, conformal coating portfolio. HumiSeal's LEDs, all varieties of electronic components, and progressive approach to formulating of connectors. Our products possess properties encapsulation materials differentiates us in most desired for these applications: nontoday's market. HumiSeal's global presence, vellowing, UV stable, water-white clear to strong technical support, and fast custom opaque black, moisture and chemical resistant, formulating capabilities encompass all customizable hardness and flexibility, thermal design engineering requirements for today's conductivity, and excellent electrical resistance.

While each application is different, our products The formulation of HumiSeal Encapsulation fit well in today's manufacturing methods and Whatever your need, HumiSeal Encapsulation Solutions can meet the challenge.

	ENCAPSULANTS	Chemistry	Viscosity Part A (CPs)	Viscosity Part B (CPs)	Mix Ratio	Pot Life (min)*	Handling Time (min)*	Full Cure**	Cure Type	Color	Hardness	Operating Temp (°C)	Applications	Substrates
2E11	Formulated to work with 1:2 volume mix-ratio, this potting material provides superior adhesion to variety of substrates. Medium viscosity with long work life.	Ероху	12,000	7,000	1:2	60	180	24 hr @ RT or 1 hr @ 65°C	2 component with heat option	Amber	D40	-50 to 125	Electronic sealing, bonding, and encapsulation	Metals, Glass, Ceramics, Plastic
2E10-B	Easily mixed at 1:1 ratio. Industrial or electronic epoxy potting compound with extended work life. Provides excellent environmental and chemical resistance with high dielectric strength of 550V/mil.	Ероху	6,000	12,000	1:1	60	180	24 hr @ RT or 1 hr @ 65°C	2 component with heat option	Black	D85	-50 to 125	Industrial sealing, bonding, and encapsulation	Metals, Glass, Ceramics, Plastic
2E25	Epoxy adhesive or encapsulant with range of mix ratios and hardness resulting in high bond strength to variety of materials. Very good electric insulator, resistant to gasses, water, petroleum products, and acids. FDA compliant.	Ероху	12,000	14,000	2:1 to 1:2	60	120	12 hr @ RT or 2 hrs @ 65ºC	2 component with heat option	Amber	D64 to D80	-40 to 155	Electronic sealing, bonding, and encapsulation	Metals, Glass, Ceramics, Plastic
2E26-G	Two part epoxy potting and bonding material with easy 2:1 mix ratio. Provides good protection against high humidity, mechanical shock, and chemicals. This product is light weight with specific gravity of 0.77 and is sandable.	Ероху	90,000	30,000	2:1	20	160	24 hr @ RT or 30 min @ 65°C	2 component with heat option	Gray	D76	-60 to 125	Electronic sealing and encapsulation	Metals, Wood, Glass, Ceramics, Plastic
2E27	Two part epoxy encapsulating material specifically designed for PCB component protection. Can be used as full potting or as individual components encapsulant. Simple 1:1 mix ratio.	Ероху	5,000	6,000	1:1	15	60	24 hr @ RT or 30 min @ 65℃	2 component with heat option	Clear	D60	-60 to 135	Electronic and industrial sealing and encapsulation	Metals, Wood, Glass, Ceramics, Plastic
2A10	Non-yellowing, UV stable, two part structural adhesive and potting urethane, formulated for LED, photovoltaic, and capacitor sealing. Low viscosity with simple 2:1 mix ratio and water-white clear after full cure.	Urethane	4,500	600	2:1	3	60	24 hr @ RT	2 component	Clear	D55	-50 to 110	LED and photovoltaic encapsulation, capacitor sealing	Metals, Wood, Glass, Ceramics, Plastic
2A11	Two part with simple 1:1 mix ratio. Soft, flexible, water-white clear, non-yellowing, LED Encapsulation for the use in wide variaty of temperature ranges. Provides good protection against high humidity and mechanical shock	Urethane	14,000	900	1:1	7	15	24 hr @ RT	2 component	Clear	D27	-50 to 125	LED encapsulation; light arrays	Metals, Glass, Ceramics, Plastic
2A13	Low stress elastic encapsulant with low viscosity and simple 1:1 mix ratio. Protection to the electronic package when exposed to multiple thermal shocks and high vibration.	Urethane	2,700	7,500	1:1	60	120	24 hr @ RT or 1 hr @ 65℃	2 component with heat option	Clear	D31	-50 to 110	Electronic sealing and encapsulation	Metals, Glass, Ceramics, Plastic
2A14-U	High performance potting and encapsulation applications with 1:2 mix ratio. This fast setting potting material and encapsulant cures to a tough, moisture resistant and flexible polymer. Good for multiple thermal cycle requirements or high mechanical shock applications.	Urethane	2,000	2,500	1:2	6	20	24 hr @ RT or 1 hr @ 65°C	2 component with heat option	Blue	D39	-40 to 125	Electronic and industrial sealing and encapsulation	Metals, Glass, Ceramics, Plastic
2A15-B	Two part 1:2 mix ratio, polyurethane system designed to be used for high performance potting and encapsulation applications. Tough flexible polymer for the protection of electronics when exposed to multiple thermal shocks and high vibration.	Urethane	550	1,700	1:2	12	25	24 hr @ RT or 2 hr @ 150ºC	2 component with heat option	Black	D39	-50 to 125	Electronic and industrial sealing and encapsulation	Metals, Glass, Ceramics, Plastic
2UV10	Two component UV gellable urethane with 1:2 mix ratio. Tack free surface and functional strength is achieved with UV exposure. The secondary reaction ensures shadowed areas are completely polymerized. High elongation and bond strength ensures protection of electronics against thermal shock and mechanical stresses.	Urethane/ Acrylate	100,000	6,000	1:2	UV exposure or 7 min in shadow	15	24 hrs @ RT	UV-gelable w/ 2 component	Clear	D39	-50 to 125	Electronic and industrial sealing and encapsulation	Plastic, Glass, Metals
JV20HV	One part, high-shear thinning and high viscosity, outstanding wetting properties, designed for high mechanical shock protection and exceptional adhesion to variety of materials. Will cure rapidly with exposure to UV-light and develop high adhesion properties with ambient secondary moisture cure.	Urethane/ Acrylate	75,000			Until exposed to UV	30 sec with UV exposure	1 - 2 J/cm² /w secondary ambient moisture 48hrs	UV/moisture	Translucent	D15	-40 to 125	Electronics and industrial bonding, staking, encapsulation	Metals, Glass, Ceramics, Plastic
UV12	One part, low viscosity and fast curing with exposure to UV light. When cured it is a water-white clear, non-yellowing, rigid encapsulant for LED and other optical applications.	Urethane/ Acrylate	2,500			Until exposed to UV	30 sec with UV exposure	1 - 2 J/cm ²	UV Cure	Clear	D80	-50 to 125	LED encapsulation; light arrays	Metals, Glass, Ceramics, Plastic
JV13-W	One part with medium viscosity encapsulant. Cures with UV light exposure and has secondary moisture cure for shadow areas. Provides excellent protection against moisture and high mechanical stresses. Designed for high throughput environments.	Urethane/ Acrylate	4,000			Until exposed to UV	30 sec with UV exposure	1 - 2 J/cm ² /w secondary ambient moisture 48hrs	UV/moisture	White	D30	-50 to 125	Potting, Encapsulation	Metals, Glass, Ceramics, Plastic
2UV11	Two part with medium viscosity, UV gelable urethane potting system designed for high end electronic protection. This soft encapsulant will protect components from high impact and vibration in high humidity operating conditions.	Urethane/ Acrylate	8,000	7,000	1:1	UV exposure or 7 min in shadow	15	24 hrs @ RT	UV-gelable w/ 2 component	Clear	A30	-50 to 110	Potting, Encapsulation	Metals, plastic, polycarbonate
2C51	Two component high strength, fast curing silicone suitable for general sealing and encapsulating. Low viscosity 1:1 mix ratio with fast room temperature cure for ease of application.	Silicone	275	550	1:1	10	20	1 hr @ RT or 30 min @ 70ºC	2 component with heat option	Light Green	00-45	-50 to 200	Sealing, Potting, Encapsulation	Metals, plastic, Ceramics, Cable/wire
2C52	Fast curing, two part silicone for applications requiring a soft, high surface tack sealant. Simple 1:1 mixture with limited flowability after dispensing. Adheres and seals most surfaces but can be easily removed and repaired after curing.	Silicone	17,500	15,000	1:1	10	20	1 hr @ RT or 2 min @ 125℃	2 component with heat option	Clear	<00 0	-50 to 200	Sealing, Potting, Encapsulation	Metals, plastic, Ceramics, Cable/wire
	THERMALLY CONDUCTIVE													
E41T-B	Two part, thermally conductive (1.29 W/mK) epoxy system designed for the protection of electronics. Simple 1:1 mix ration with med-high viscosity. Excellent dielectric strength (500V/mil).	Ероху	35,000	27,000	1:1	60	200	24 hr @ RT or 2 hr @ 65ºC	2 component with heat option	Black	D60	-50 to 155	Electronic and Industrial encapsulation	Metals, Glass, Ceramics, Plastic
E42T-B	Two part, thermally conductive (0.83 W/mK) epoxy system designed for the protection of electronics. Simple 1:1 mix ration with med-high viscosity. Excellent dielectric strength (500V/mil).	Ероху	20,000	30,000	1:1	60	180	24 hr @ RT or 2 hr @ 65°C	2 component with heat option	Black	D65	-50 to 155	Electronic and Industrial encapsulation	Metals, Glass, Ceramics, Plastic
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A GLOBAL SOLUTION

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