

KANeKa

KANEKA AEROSPACE LLC



KANEKA AEROSPACE MATERIALS PRODUCT SELECTION GUIDE

Kaneka Aerospace offers specialty high performance composite materials for the aerospace and industrial industries. Our prepregs, adhesives, resin, and tolling materials provide distinguishing properties that enable our customers to achieve value beyond lightweight and strength. Kaneka Aerospace has a much wider library of products developed over the past 25 years. Contact us for specific needs and requirements.



PREPREGS and ADHESIVES

Product	Product Form	Application	Storage Frozen	Out Time	Cure Temp °C / Cure Time	Tg °C Dry/Wet	Characteristics
Kaneka BZ9703	Prepreg	Structure	720 days	90 days @ 24°C	177/2 hours	195/156	Toughened, easy to process benzoxazine system with good hot/wet properties. Low cure shrinkage & exotherm
Kaneka BZ9704	Prepreg	Structure	720 days	180 days @ 24°C	185/3 hours	201/164	Toughened, easy to process benzoxazine system with good hot/wet properties. Low cure shrinkage & exotherm
Kaneka BZ9691	Film Adhesive	Composite Bonding	365 days	48 days @ 24°C	185/3 hours	215/193	Benzoxazine film adhesive. Excellent performance with BZ prepregs and composites
Kaneka GP2800	Prepreg	Fast Curing for Industrial Applications	365 days	TBD	121/15 minutes	143/TBD	Epoxy based fast curing prepreg ideal for high rate industrial applications. Available in UD or 2x2 twill
Kaneka SP2400	Prepreg	Cryogenic Tanks	365 days	60 days @ 24°C	176/3 hours	185/TBD	Benzoxazine based structural prepreg developed for cryogenic tanks and aerospace structures that require sub-ambient temperature performance
Kaneka SP2410 600S	Prepreg	High Temperature Ablative	365 days	30 days @ 24°C	180/3 hours	160/NA	Benzoxazine based ablative system with phenolic ablative properties but epoxy like processing
Kaneka TP2230	Prepreg	Composite	365 days	28 days @ 24°C	See TDS	TBD	121°C demoldable BMI tooling prepreg followed by 204°C free standing post cure. Ideal for high-rate composite tools designed for 350°F cured composite parts

RESINS and ADHESIVES

Product	Application	Initial Viscosity mPa*s	Working Life*	Cure Temp °C	Tg °C	Flexural Strength MPa	Flexural Modulus GPa	Characteristics
Kaneka FW6600	Winding	1230	4 hours	Step cure, See TDS	208	129	3.1	Excellent wetting characteristics. Good strength retention at elevated temperature
Kaneka FW6610	Winding	1000	>4 hours	Step cure, See TDS	230	114	3.6	High heat resistance, exceptional balance of mechanical properties
Kaneka FW6620	Winding	2215**	4 hours	Step cure, See TDS	>315	TBD	TBD	High temperature bismaleimide (BMI) hybrid matrix resin
Kaneka GR6810	Wet Lamination, Compression molding	4300	22	82	78	131	3.0	Fast curing system for lamination and compression molding. Good for snow skis and snow boards.
Kaneka GR6820	Winding, Infusion	390	15 hours	Step cure, See TDS	181	139	3.1	Good for high temp & high chemical resistant applications

RESINS and ADHESIVES (con't)

Product	Application	Initial Viscosity mPa*s	Working Life*	Cure Temp °C	Tg °C	Flexural Strength MPa	Flexural Modulus GPa	Characteristics
Kaneka GR6822	Winding	6600	3 hours	149	168/TBD	149	2.9	Curing agent used with standard Bis-A resin to achieve higher speed cure with long processing window
Kaneka GR6842	Wet Lamination	800	58 minutes	RT/82	88	152	3.6	Non-toughened, high modulus system good for thick or thin parts
Kaneka GR6840	Lamination	1200	50 minutes	RT/82	81	123	2.9	Toughened system resistant to delamination, good for thick or thin parts
Kaneka GR6860	RTM, VaRTM	370	45 minutes	RT/82	100	131	2.9	Good for sporting goods, infrastructure, marine, etc. Can be cured at RT
Kaneka GR6864	RTM, VaRTM	245	2 hours	93	92	112	2.6	Good toughness, high impact resistance. Good for structural and ballistic applications
Kaneka GR6846	Wet Lamination	1240	60 minutes	80	84	130	3.3	Designed for applications where high stiffness and low cost are important
Kaneka GR6849	Wet Lamination	1850	42 minutes	80	89	90	4.1	Flame retardant wet lamination resin
Kaneka GR6862	VaRTM	280	80	RT/93	98	118	2.8	Toughened system with tailored pot-life and viscosity allowing for infusion at 25°C
Kaneka GR6863/GR6865	RTM	430	30	83	86	113	3.0	Fast curing infusion resin that achieves an excellent balance of stiffness and toughness
Kaneka GR6866	VaRTM	250	45	RT/70	55/82	77/116	3.4/3.2	Toughened system that cures at room temperature. Can be post cured
Kaneka IR6030	RTM, VaRTM, Winding	370	90 minutes	Step cure, See TDS	135	172	3.9	Excellent balance of processability and mechanical properties
Kaneka IR6045	RTM, VaRTM	320	>60 minutes	177	220	87.5	3.0	High temperature system with low viscosity and long pot life for infusion processes
Kaneka IR6060	RTM	See TDS	<15 minutes	180	190	157	3.8	Quick cure system that can be demolded in 30 minutes or less
Kaneka IR6075	RTM, VaRTM	426	61	70	83	115	4.2	Flame-retardant system specially designed for VaRTM processes
Kaneka IR6077	RTM, VaRTM	440	52	110	123	158	4.2	Non-brominated flame-retardant system with high Tg specially designed for VaRTM processes
Kaneka SR6410	RTM, VaRTM	See TDS	1-2 hours	182	175	136	4.5	Benzoxazine resin system for high temperature ablative applications
Kaneka SR6400	Composite Injection Repair	80	60 minutes	121 (as low as 71)	128	150	3.6	Designed for injection repair. Low viscosity resin is able to wick and penetrate cracks/delaminated areas
Kaneka SR6440	Prepreg Resin	NA	>60 minutes	177	206	137	3.5	Prepreg resin system with an excellent balance of properties for a wide range of applications
Kaneka SR6450	RTM, Winding	660	4 hours	93	93	140	2.9	Toughened system ideal for cryogenic applications
Kaneka GA4810	Adhesive	NA	50	60	76	NA	NA	Thixotropic liquid adhesive system with excellent bond-line control and bonds dissimilar materials
Kaneka GA4820	Adhesive	NA	80	60	77	NA	2.9	Thixotropic adhesive for bonding composite and metal structures. Designed for honeycomb panel fabrication.
Kaneka 200465-P	VaRTM	750 @RT 350 @35°C	7 hrs @RT 4 hrs @35°C	120	144	113	3.2	Resin system when cured with S-2 Glass® results in a Transparent Composite

All testing was performed at room temperature unless stated otherwise.

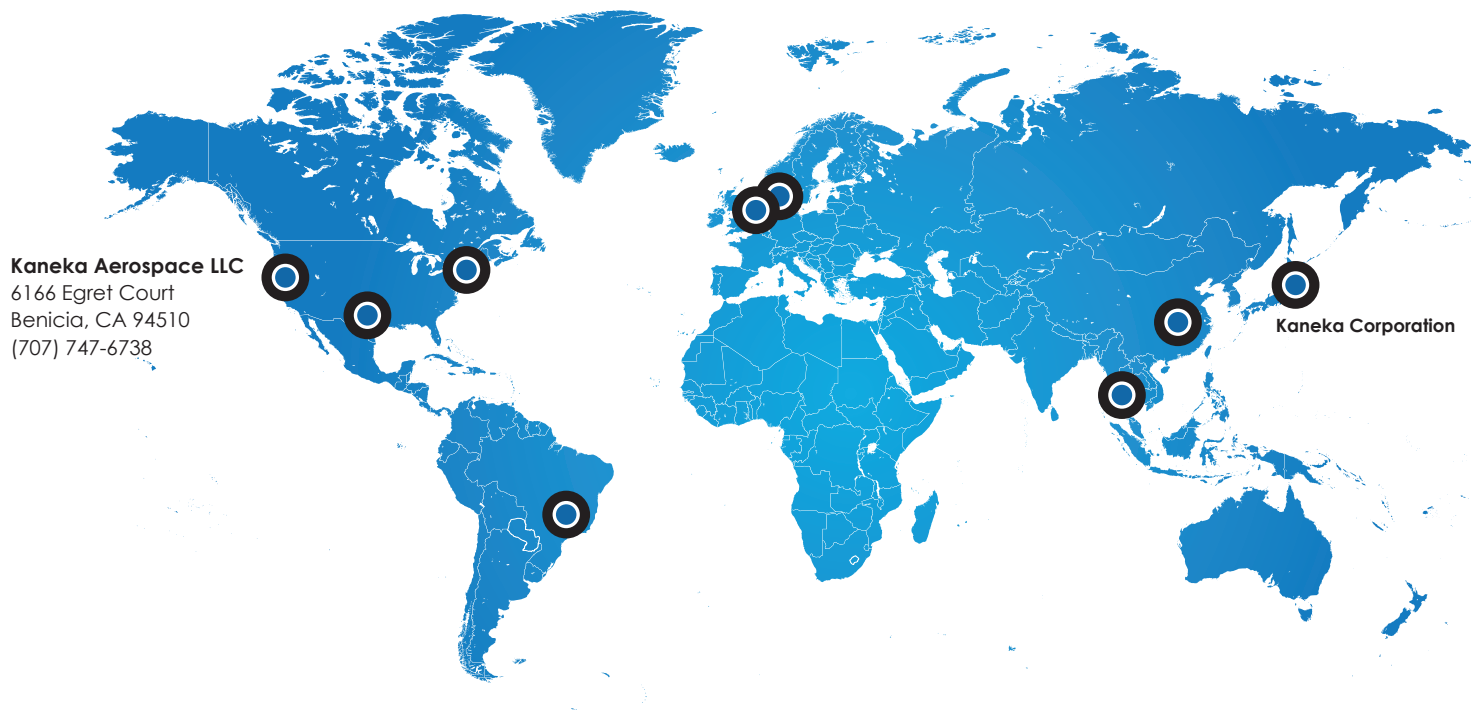
*Working life is the time it takes for the viscosity to double.

**at 71°C



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