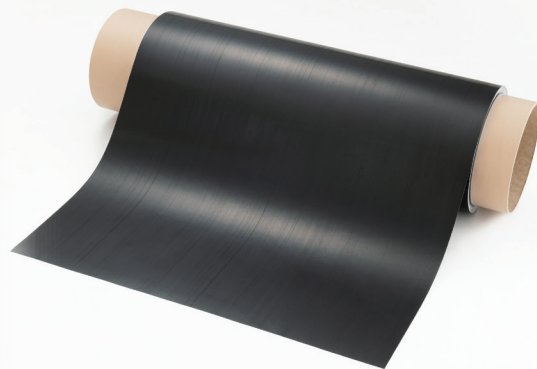


# Carbon Fiber Prepreg

Carbon fiber prepreg is an intermediate material in the form of a sheet of carbon fiber impregnated with matrix resin. There are various types of prepreg such as UD prepreg (unidirectional prepreg), in which carbon fibers are aligned in one direction, and cloth prepreg, in which carbon fibers are woven into a fabric and impregnated with matrix resin.



## **PYROFIL™** UD Prepreg (Unidirectional Prepreg)

Product name	Carbon fiber type	Resin type	Carbon fiber weight (Fiber areal weight) (g/m <sup>2</sup> )	Resin content (RC) (wt%)	Prepreg weight (Prepreg areal weight) (g/m <sup>2</sup> )	Thickness (mm)	Std. length (m)
TR 350C075S	PAN 24t	High-toughness epoxy	75	25.0	100	0.062	125
TR 350C100S	PAN 24t	High-toughness epoxy	100	25.0	133	0.083	125
TR 350C125S	PAN 24t	High-toughness epoxy	125	25.0	167	0.103	125
TR 350C150S	PAN 24t	High-toughness epoxy	150	25.0	200	0.124	125
TR 350C175S	PAN 24t	High-toughness epoxy	175	25.0	233	0.145	125
TR 350E100R	PAN 24t	High-toughness epoxy	105	30.0	150	0.095	125
TR 350E125S	PAN 24t	High-toughness epoxy	125	30.0	179	0.113	125
TR 350E150S	PAN 24t	High-toughness epoxy	150	30.0	214	0.136	125
TR 350G100S	PAN 24t	High-toughness epoxy	100	33.0	149	0.096	125
TR 350G125S	PAN 24t	High-toughness epoxy	125	33.0	187	0.120	125
TR 350G150S	PAN 24t	High-toughness epoxy	150	33.0	224	0.144	125
TR 350G175S	PAN 24t	High-toughness epoxy	175	33.0	261	0.168	125
TR 350G250S	PAN 24t	High-toughness epoxy	250	33.0	373	0.240	75
TR 350J050S	PAN 24t	High-toughness epoxy	54	37.5	86	0.057	125
TRH350B100S	PAN 26t	High-toughness epoxy	100	20.0	125	0.080	125
TRH350B125S	PAN 26t	High-toughness epoxy	125	20.0	156	0.095	125
TRH350B150S	PAN 26t	High-toughness epoxy	150	20.0	188	0.114	125

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# PYROFIL™ UD Prepreg (Unidirectional Prepreg)

Product name	Carbon fiber type	Resin type	Carbon fiber weight (Fiber areal weight) (g/m <sup>2</sup> )	Resin content (RC) (wt%)	Prepreg weight (Prepreg areal weight) (g/m <sup>2</sup> )	Thickness (mm)	Std. length (m)
MRX350C075S	PAN 30t	High-toughness epoxy	75	25.0	100	0.062	125
MRX350C100S	PAN 30t	High-toughness epoxy	100	25.0	133	0.083	125
MRX350C125S	PAN 30t	High-toughness epoxy	125	25.0	167	0.104	125
MRX350C150S	PAN 30t	High-toughness epoxy	150	25.0	200	0.125	125
MR 350J050S	PAN 30t	High-toughness epoxy	54	37.5	86	0.057	125
MRA350C075S	PAN 33t	High-toughness epoxy	75	25.0	100	0.062	125
MRA350C100S	PAN 33t	High-toughness epoxy	100	25.0	133	0.083	125
MRA350C125S	PAN 33t	High-toughness epoxy	125	25.0	167	0.103	125
HRX350C075S	PAN 40t	High-toughness epoxy	69	25.0	92	0.057	125
HRX350C080S	PAN 40t	High-toughness epoxy	75	24.0	99	0.061	125
HRX350C100S	PAN 40t	High-toughness epoxy	92	25.0	123	0.076	125
HRX350C110S	PAN 40t	High-toughness epoxy	100	24.0	132	0.081	125
HRX350C125S	PAN 40t	High-toughness epoxy	116	25.0	155	0.096	125
HRX350C130S	PAN 40t	High-toughness epoxy	125	24.0	164	0.102	125
HRX350C150S	PAN 40t	High-toughness epoxy	139	25.0	185	0.115	125
HRX350C160S	PAN 40t	High-toughness epoxy	150	25.0	200	0.124	125
HSX350C075S	PAN 46t	High-toughness epoxy	69	25.0	92	0.056	125
HSX350C080S	PAN 46t	High-toughness epoxy	75	24.0	99	0.060	125
HSX350C100S	PAN 46t	High-toughness epoxy	92	25.0	123	0.075	125
HSX350C110S	PAN 46t	High-toughness epoxy	100	24.0	132	0.080	125
HSX350C125S	PAN 46t	High-toughness epoxy	116	25.0	155	0.095	125
HSX350C130S	PAN 46t	High-toughness epoxy	125	24.0	164	0.100	125
HSX350C150S	PAN 46t	High-toughness epoxy	139	25.0	185	0.114	125
HSX350C160S	PAN 46t	High-toughness epoxy	150	24.0	197	0.121	125

# PYROFIL™ Cloth Prepreg (Fabric Prepreg)

Product name	Carbon fiber type	Fabric structure	Resin type	Carbon fiber weight (Fiber areal weight) (g/m <sup>2</sup> )	Resin content (RC) (wt%)	Prepreg weight (Prepreg areal weight) (g/m <sup>2</sup> )	Thickness (mm)	Std. length (m)
TR3110 381GMX	PAN 24t	Plain	High-appearance epoxy	200	40.0	333	0.220	50
TR3523 381GMX	PAN 24t	2/2 Twill	High-appearance epoxy	200	40.0	333	0.220	50
TR6110H331GMP	PAN 24t	Plain	General-purpose epoxy	288	40.0	480	0.320	50
TRK101 331GMP	PAN 24t	Plain	General-purpose epoxy	400	40.0	667	0.440	50
TRK510 321GMP	PAN 24t	2/2 Twill	General-purpose epoxy	646	40.0	1,077	0.720	25

The values in this table are typical values

and do not imply an kind of guarantee. If you would like to use a resin in the list of resins listed separately, please contact us.

The width of all types of prepreg is 1,000 mm. The standard length is displayed for winding lengths. If you would like a non-standard length, please contact us.

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# Carbon Fiber Prepreg

## DIALEAD™ UD Prepreg (Unidirectional Prepreg)

Product name	Carbon fiber type	Resin type	Carbon fiber weight (Fiber areal weight) (g/m <sup>2</sup> )	Resin content (RC) (wt%)	Prepreg weight (Prepreg areal weight) (g/m <sup>2</sup> )	Thickness (mm)	Std. length (m)
HyE J10M65PD	PITCH 65t	General-purpose epoxy	100	35.0	154	0.094	100
HyE J17M65QD	PITCH 65t	General-purpose epoxy	175	32.0	257	0.150	100
HyE J34M65PD	PITCH 65t	General-purpose epoxy	340	32.0	500	0.292	50
HyE J12M80QD	PITCH 80t	General-purpose epoxy	125	20.0	156	0.084	100
HyE J12M80QD	PITCH 80t	General-purpose epoxy	125	25.0	167	0.092	100
HyE J12M80QD	PITCH 80t	General-purpose epoxy	125	37.0	198	0.118	100
HyE J28M80QD	PITCH 80t	General-purpose epoxy	280	32.0	412	0.240	50
HyE J56M80QD	PITCH 80t	General-purpose epoxy	560	32.0	838	0.480	30
HyE J34M65PDHX1	PITCH 65t	Heat-resistant epoxy	340	30.0	486	0.280	75
HyE J28M80QDHX1	PITCH 80t	Heat-resistant epoxy	280	30.0	400	0.229	50
HyE J45M80QDHX1	PITCH 80t	Heat-resistant epoxy	450	30.0	643	0.367	50
HyE J17HX1 SG	PAN 24t	Heat-resistant epoxy	175	30.0	250	0.158	100
HyE J25HX1 SG	PAN 24t	Heat-resistant epoxy	250	30.0	357	0.225	75

## DIALEAD™ Cloth Prepreg (Fabric Prepreg)

Product name	Carbon fiber type	Fabric structure	Resin type	Carbon fiber weight (Fiber areal weight) (g/m <sup>2</sup> )	Resin content (RC) (wt%)	Prepreg weight (Prepreg areal weight) (g/m <sup>2</sup> )	Thickness (mm)	Std. length (m)
HMFJ3113/911H	PAN 24t	Plain	Heat-resistant epoxy	200	45.0	364	0.250	50

The values in this table are typical values

and do not imply an kind of guarantee. If you would like to use a resin in the list of resins listed separately, please contact us.

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# Carbon Fiber Prepreg

## PYROFIL™ Prepreg Matrix Resin List

Resin number	Resin type	Curing temperature (°C)	Main applications	Features
#350	Epoxy	130	General applications, sporting goods	High toughness
#381	Epoxy	130	Cloth prepreg, general purpose	Transparent appearance
#392	Epoxy	130	General applications, sporting goods	Rapid curing
#395	Epoxy	130	General applications, sporting goods	Rapid curing, high toughness
#361	Epoxy	130 - 140	Industrial, automotive exterior components	Press molding (PCM), rapid curing, class A appearance
#368	Epoxy	130 - 140	Industrial, automotive exterior components	Press molding (PCM), rapid curing, heat resistance
#3R1	Epoxy	130 - 150	Industrial, automobiles	Press molding (PCM), ultra-rapid curing, heat resistance
#830	Epoxy	80	General applications, sporting goods	Low-temperature curing
#853	Epoxy	80 (demolding) 180 (post-curing)	Industrial, aerospace tools (mold materials)	Low-temperature curing, demoldable
#261	Epoxy	180	General applications, general industrial	Heat resistance (post-curing), low thermal expansion
#270	Epoxy	180	Industrial, aerospace tools (mold materials)	Heat resistance, low thermal expansion
#266	Epoxy	180	General industrial	Heat resistance, toughness
#290	Cyanate ester	135 (demolding) 250 (post-curing)	Industrial, aerospace	High heat resistance
#108	Epoxy	180	Aerospace	Heat resistance, toughness

As of June 2022

Please consult with us for other specifications.

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<https://www.m-chemical.co.jp/carbon-fiber/en/product/prepreg/>

