



Ruia Chemicals Private Limited.
105/2B Ultadanga Main Road, Kolkata – 700067

SPECIFICATION OF
POLYESTER RESIN

BULLETIN No.: 1
Issue : 01. Rev.03

PROPERTIES OF			LIQUID RESIN								CURED RESIN		APPLICATION
BASE	Type	Code	Appearance	Acid value (Mg KOH/gm)	Viscosity at 25°C (CPs)	Specific Gravity At 25°C	Refractive Index At 25°C	Volatile Content (%)	Gel time at 25°C (in minutes) temp	Gel time at 82°C (min.) /PE (°C)	Barcol Hardness	Heat Distortion ± 3 (°C)	

ORTHOCELL	General Purpose	Fibrebond 333	Clear to Pale Yellow Liquid	20±2	700-250	1.10-1.13	1.53-1.55	35±2	15	9-13 165 ⁰ -170 ⁰	42-45	70 ⁰	Medium reactivity premium G.P. Resin, suitable for hand lay-up moulding, filament winding etc. Extensively used to manufacture normal FRP products. Widely used for potting of chokes.
	General Purpose	Fibrebond 3333	Clear to Pale Yellow Liquid	20±4	700-250	1.10-1.13	1.53-1.54	33±3	20	9-13 160 ⁰ -170 ⁰	35-40	65 ⁰	General purpose resin of medium reactivity. Its bonding & impact strength is very high. Widely used for polyester Putty.
	RTM	Fibrebond 330	Clear to Pale Yellow Liquid	22±2	200-300	1.08-1.10	1.53-1.54	38±3	15	10-12 180 ⁰ -200 ⁰	42-45	70 ⁰	General purpose resin used widely in resin transfer moulding application.
	Food Grade	Fibrebond 331	Clear to Pale Yellow Liquid	18±2	400-100	1.08-1.09	1.52-1.54	39±2	15	10-14 165 ⁰ -170 ⁰	40-45	65 ⁰	General purpose resin, to manufacture FRP products used in storage and handling of Food articles in FRP based Food Packing/Industries
	Roof Lite	Fibrebond 324	Clear to Pale Yellow Liquid	22±2	200-50	1.08-1.10	1.52-1.54	41±2	40	16-20 165 ⁰ -170 ⁰	40-45	70 ⁰	UV stabilized medium reactive resin used for marking Translucent Rooflite sheets.
	Roof Lite	Fibrebond 3241	Clear to Pale Yellow Liquid	22±2	200-50	1.10-1.13	1.52-1.54	41±2	40	16-20 170 ⁰ -180 ⁰	40-45	70 ⁰	UV stabilizer medium reactive resin used for marking Translucent Rooflite sheets. It can also be used for decorative laminates.
	SMC	Fibrebond 555	Clear to Pale Yellow Liquid	19±2	900-1600	1.10-1.13	1.53-1.54	32±2	15	8-12 160 ⁰ -170 ⁰	43-48	70 ⁰	High reactivity resin designed specially for manufacture of SMC.
	DMC	Fibrebond 554	Clear to Pale Yellow Liquid	21±2	3000-300	1.11-1.14	1.53-1.54	29±3	15	8-12 160 ⁰ -170 ⁰	50-52	70 ⁰	High reactivity resin designed specially for manufacture of DMC. It can also effectively be used in press moulding. Resin designed for hot press moulding for low shrinkage.



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ORTHALIC	Fire Retardant	Fibrebond 401	White Liquid	16±2	600-1100	1.15-1.20	NA	30±2	15	10-12 150 ⁰ -170 ⁰	40-45	60 ⁰	Medium reactivity resin has very very low inflammability can be safely used to make articles where safety from fire hazards is necessary.
	Fire Retardant SMC	Fibrebond 455	White Liquid	16±2	1000-1800	1.15-1.20	NA	28±2	15	8-12 150 ⁰ -170 ⁰	40-45	60 ⁰	High reactivity resin designed specially for manufacture of SMC having fire retardant properties.
	RTM FR	Fibrebond 403	Milky white Liquid	16±2	500-200	1.15-1.20	NA	32±2	15	10-15 145 ⁰ -150 ⁰	30-35	60 ⁰	General purpose resin used widely in resin transfer moulding application-very low inflammable resin orthophthalic based.
	Fire Retardant	Fibrebond 4011	White Liquid	16±2	1000-1800	1.20-1.30	NA	30±5	15	10-12 165 ⁰ -170 ⁰	48-50	60 ⁰	Low cost Fire Retardant Polyester Resin.
ISOPHTHALIC	Normal	Fibrebond 347	Clear to Pale Yellow Liquid	15±2	500-800	1.10-1.13	1.53-1.54	39±2	15	9-12 170 ⁰ -200 ⁰	45-50	100 ⁰	High reactivity resin used against mild corrosion resistance of acids. It is widely used to make FRP chemicals process plants, storage tank, pipes, exhaust hood etc. imparts good mechanical and electrical properties.
	SMC/DMC	Fibrebond 550	Clear to Pale Yellow Liquid	14±2	1000-1800	1.10-1.13	1.53-1.54	34±2	15	9-12 185 ⁰ -200 ⁰	45-50	100 ⁰	Highly reactivity high viscous resin specially designed for SMC/DMC application.
	Fire Retardant	Fibrebond 402	White Liquid	14(max)	600-1100	1.15-1.25	NA	32±2	15	15-20 155 ⁰ -200 ⁰	40-45	80 ⁰	Highly reactive very low flammability fire retardant resin.
	Food Grade	Fibrebond 3470	Clear to Pale Yellow Liquid	14±2	300-200	1.06-1.10	1.52-1.54	40±2	15	15-18 185 ⁰ -200 ⁰	40-45	100 ⁰	Polyester resin used in food processing industry.
	PVC Grade	Fibrebond 348	Clear to Pale Yellow Liquid	14±2	400-200	1.08-1.10	1.52-1.54	40±2	15	6-8 185 ⁰ -200 ⁰	40-45	100 ⁰	Medium reactive polyester resin for FRP laminations on PVC. It has excellent bonding with PVC.



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ISOPHTHALIC	RTM	Fibrebond 349	Clear to Pale Straw Liquid	15±2	250-300	1.09-1.12	1.53-1.54	45±2	15	10-12 180 ⁰ -200 ⁰	42-45	100 ⁰	Isophthalic Resin used widely in resin transfer moulding application as per IS-6746
	RTM FR	Fibrebond 404	Milky white Liquid	12±2	500-200	1.15-1.20	NA	33±2	15	10-15 155 ⁰ -170 ⁰	40-45	80 ⁰	Very low inflammability Isophthalic based resin widely used in resin transfer moulding.
PHTHALIC	SMC/DMC	Fibrebond 3472	Clear to Hazy Liquid	12±2	400-700	1.09-1.12	1.53-1.54	38±2	15	9-12 180 ⁰ -190 ⁰	40-45	100 ⁰	Polyester Resin used for SMC/DMC application.
	Normal	Fibrebond 3473	Clear to Hazy Liquid	16±2	400-700	1.09-1.12	1.53-1.54	38±2	15	9-12 180 ⁰ -190 ⁰	40-45	100 ⁰	Terephthalic acid based polyester Resin suitable for use in fiberglass Rain forced plastics moulding application where superior water resistance, heat resistance is desired in comparison to general purposes polyester resin
GELCOAT	Ortho - pthalic	Fibrebond 323	Opaque Pale Yellow Liquid	19±2	Thixo Tropic	1.10-1.15	NA	34±2	15	9-12 165 ⁰ -170 ⁰	NA	70 ⁰	Thixotropic Gel coat resin to be used for a smooth top surface. This is used as a top coat of FRP articles to make the surface coloured, elastic and highly glossy.
	Isophthalic	Fibrebond 353	Opaque Pale Yellow Liquid	12±2	Thixo Tropic	1.10-1.15	NA	38±2	15	9-12 185 ⁰ -200 ⁰	NA	100 ⁰	Thixotropic Gel coat resin based on Isophthalic Polyester Resin. It has high impact resistance; durability is much higher with very low water absorption.
	Ortho - pthalic Fire Retardant	Fibrebond 423	Opaque Pale Yellow Liquid	14±2	Thixo Tropic	1.15-1.20	NA	30±2	15	12-15 165 ⁰ -175 ⁰	NA	60 ⁰	Orthophthalic based Fire retardant Gel Coat. It is used as a top coat on fire retardant articles.
	Isophthalic Fire Retardant	Fibrebond 424	Opaque Pale Yellow Liquid	10±2	Thixo Tropic	1.15-1.20	NA	32±2	15	12-15 180 ⁰ -200 ⁰	NA	80 ⁰	Isophthalic based Fire retardant Gel coat. It is used as a top coat on fire retardant articles.



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Bisphenol Fumarate	Bisphenol Grade	Fibrebond 501	Pale Yellow Liquid	12±2	550-100	1.06-1.08	1.53-1.54	49±2	20*	35-40 175 ⁰ -200 ⁰	42-48	135 ⁰	Based on Prepoxylated Bisphenol Structure offers excellent corrosion resistance to acid mild alkalies, salts, solvents. Suitable for moulding, hand lay-up and filament winding applications.
Special	Tooling Grade	Fibrebond 3471	Clear to hazy liquid	16±2	600-700	1.10-1.13	1.53-1.54	32±2	15 min	5-7 210 ⁰ -220 ⁰	55-60	100 ⁰	Tooling grade resin having good corrosive resistance.
	Lamination Grade	Fibrebond 547	Clear to Pale Yellow liquid	25±3	125-145	1.06-1.09	1.53-1.54	41±1	8 min	9-11 170 ⁰ -190 ⁰	40-45	102 ⁰	Press moulded laminates. It is also suitable with natural fibers.
Vinyl Ester	Normal Grade	Fibrebond 701	Pale Yellow to Light	10±2	400-600	1.05-1.06	1.53-1.54	35±5	20*	35-40 120 ⁰ -140 ⁰	30-35	100 ⁰	Chemicals structure intermediate between those of epoxides and polyester, excellent wetting and bonding to Glass fibres. Retains high elongation at moderate and high temp. excellent chemicals resistance and low shrinkage
	Fire Retardant	Fibrebond 702	Brownish white	8±2	400-800	1.15-1.18	NA	30±2	20*	35-40 120 ⁰ -140 ⁰	30-35	100 ⁰	Vinyl Easter Resin based Fire Retardant Resin. It has chemicals resistance towards acids and alkalis and has excellent fire retardant properties.

*Double promoted system are required for room temperature cure of laminates or Casting. Viscosity by Brook field method.
The information contained herein is based on experimental work done in our laboratories and is believed to be correct to the best of our knowledge.
However since conditions under which our products may be used are beyond our control, recommendation are made without warranty or guarantee.
Storage life of uncatalysed resin in the dark at 25°C minimum 3 months.