



POLYSTRAND™ CONTINUOUS FIBER REINFORCED THERMOPLASTIC TECHNOLOGIES

LIGHTWEIGHT. STRONG. DURABLE. RECYCLABLE.

High strength fibers and engineered thermoplastic resins combine to create continuous fiber reinforced thermoplastic (CFRTP) materials that can help reduce weight while maintaining exceptional strength and impact resistance in a variety of applications.

Polystrand CFRTP composites are available in rolls of tape; X-Ply™ 0°/90° and other multi-ply laminates; sandwich panels; and recycled flake molding compound. These materials can be post-formed and co-molded in DLFT and LFT compression molding and injection molding operations as selective and strategic reinforcement to increase design flexibility, improve specific strength, lower component weight and decrease total process cycle time.

Materials include:

PETG – AMORPHOUS COMPOSITES

- Up to 70% fiber by weight
- Bondable, paintable and lightweight
- With fire-resistant additive, passes ASTM E84 Class B fire retardancy standard

THERMOBALLISTIC™ COMPOSITES

- High strain-to-failure for ballistic and blast resistance
- Exceptional energy management properties
- E-glass, S-glass and aramid fibers

THERMOPRO™ COMPOSITES

- Polyolefin composites
- 60% to 80% fiber by weight

FLAKE MOLDING COMPOUND

- 100% recycled thermoplastic composite material
- Excellent molding capabilities
- High strength core

MATERIAL PROPERTIES

Part	ASTM D790					ASTM 5630					Resin System		
	Peak Flexural Stress (psi)	Peak Flexural Stress (MPa)	Flexural Modulus of Elasticity (psi)	Flexural Modulus of Elasticity (GPa)	Spec FC %	AW Spec #/ft ²	AW Spec oz/yd ²	Fiber Loading oz/yd ²	AW Spec g/m ²	Puncture Max Force X-ply (lb)		Tape Thick (in)	Tape Thick (mm)
IE 6035	69,566	480	3,818,157	26	60.00%	0.0620	8.9	5.4	301	298	0.009	0.23	PP Copolymer
IE 6536	67,596	466	4,261,298	29	64.30%	0.0719	10.4	6.7	349	341	0.010	0.25	PP Copolymer
IE 7034	71,908	496	4,829,201	33	70.00%	0.0728	10.5	7.3	354	443	0.010	0.25	PP Copolymer
IE 7034B	74,903	516	4,521,459	31	70.00%	0.0728	10.5	7.3	354	443	0.010	0.25	PP Copolymer Black
IE 7032	61,946	427	4,280,691	30	70.00%	0.0813	11.7	8.2	395	-	0.012	0.30	PP Copolymer
IE 7032B	65,113	449	4,325,214	30	68.00%	0.0837	12.1	8.2	407	-	0.012	0.30	PP Copolymer Black
IE 6832	59,335	409	4,014,206	28	66.50%	0.0873	12.6	8.4	424	450	0.012	0.30	PP Copolymer
IE 6030	55,672	384	3,460,083	24	60.00%	0.0948	13.7	8.2	461	460	0.013	0.33	PP Copolymer
IE 6537	61,974	427	3,916,664	27	64.75%	0.1027	14.8	9.6	499	478	0.015	0.38	PP Copolymer
IE 6538	44,545	307	3,380,804	23	64.75%	0.1373	19.8	12.8	667	477	0.019	0.48	PP Copolymer
PETG 5842	87,284	602	4,182,676	29	58.00%	0.0834	12.0	7.0	405	-	0.012	0.30	PETG
PETG 5844	90,436	624	4,250,488	29	58.00%	0.0901	13.0	7.5	438	-	0.013	0.33	PETG
IE 6010	62,256	429	3,301,005	23	60.00%	0.0948	13.7	8.2	461	371	0.013	0.33	PP Homopolymer
IE 6527	52,658	363	3,802,732	26	64.75%	0.1027	14.8	9.6	499	570	0.015	0.38	PE Copolymer

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