HEARTLAND

30% Engineered Hemp Filled Polypropylene Compound

Product Description

30% hemp fiber dispersed in a Polypropylene matrix engineered for extrusion and injection molding applications.

General Information

Resin	Polypropylene
Filler	Hemp Fiber
Fill level	30%
Uses	Extrusion, Injection Molding
Form	Pellets

Physical Properties

	Typical Value Range	Units	Method
Specific Gravity	1.00	N/A	ASTM D792
Moisture Content	< 1	%	ASTM D6980

Storage, Shelf Life, Processing Limitations & Packaging

Keep in a tightly closed container and out of direct sunlight. Dry material at 80°C for 3-4 hours prior to use if needed. Reseal bag after use. Product is shelf stable for at least 1 year and must be processed < 400°F.

Compound Performance

Testing is performed on ASTM standard injection molded tensile and flexural bars made from hemp fiber dispersed into Polypropylene via twin screw extrusion.

Active Additive Weight %		30% Hemp	30% Talc	30% Glass Fiber	Virgin PP	Units	Method
Tensile	Modulus Strength Elongation @ Break	598188 5270 1.9	391601 3742 22.5	915188 12009 4.0	213206 10820 265.0	psi psi %	ASTM D638
Flexural	Modulus Strength	497220 8683	378549 6599	786105 17260	200152 5279	psi psi	ASTM D790
Impact (IZOD)	Unnotched Notched	2.69 0.41	6.39 0.98	9.42 2.14	7.57 1.51	ft-lbf/in ft-lbf/in	ASTM D256 ASTM D4812
Specific Gravity		1.00	1.13	1.14	0.91	N/A	ASTM D792
Moisture Absorbtion @ 96 hours		2.09 (0.07)	N/A (N/A)	N/A (N/A)	N/A (N/A)	% Uptake (SD)	ASTM D5229
Carbon Impact		+7428	+8460	+9420	+12000	lb/t	

Recommended Molder Conditions

Barrel Temperature	370 - 390 °F
Mold Temperature	115 - 135 °F