



Advantages of GREENMANTRA's Polyethylene Polymer Additive Compounded with PCR HDPE Resin

GREENMANTRA[®] combines TECHNOLOGY with SUSTAINABILITY to create unique CERANOVUS[®] A Series Polyethylene (PE) Additives from recycled plastics.

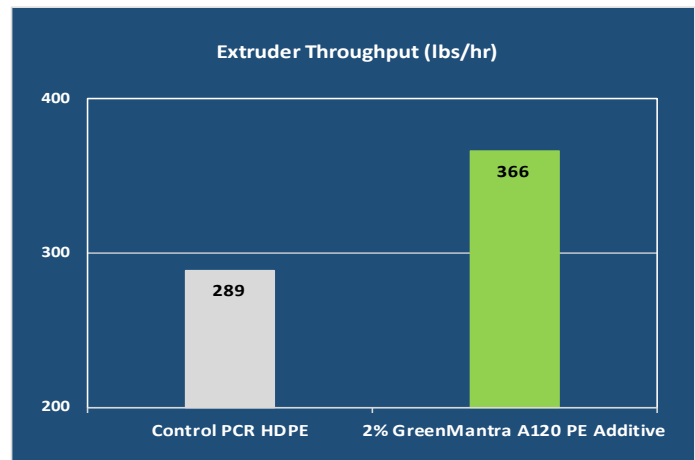
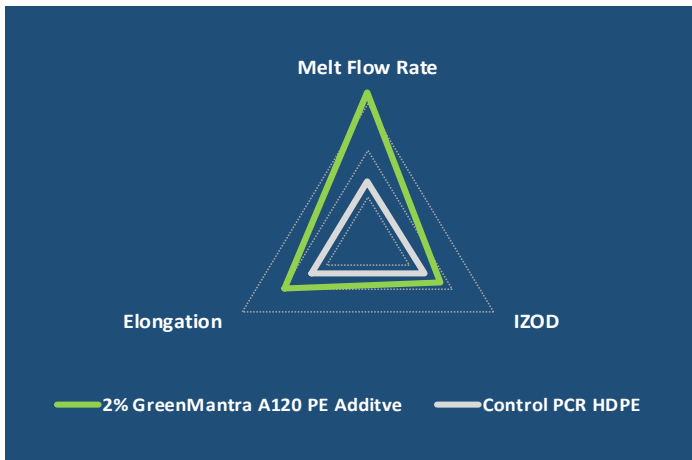
GREENMANTRA[®] has verified the performance advantages of **CERANOVUS**[®] A120 PE Additive when compounded with a fractional melt post-consumer recycled (PCR) HDPE resin.

TYPICAL PROPERTIES OF CERANOVUS[®] A120 PE ADDITIVE

Density (g/cm ³) ASTM D1298	Drop Point (°C) ASTM D3954	Penetration @ 25°C in dmm ASTM D1321	Viscosity cps @ 140°C BROOKFIELD
0.93	122	2	700

At 2% loading level, **CERANOVUS**[®] A120 PE Additive delivers a unique combination of physical property and operational advantages in extrusion, injection and blow molding processes:

- 50+% increase in Melt Flow Rate
- 20% improvement in Elongation at Yield
- 12% increase in IZOD Impact Strength
- 27% increase in Extruder Throughput
- 20% reduction in Energy Requirements



These enhanced physical properties and optimized processing conditions were confirmed through testing at Plastics Forming Enterprises. Detailed results for CERANOVUS A120 PE Additive are available upon request.



Products containing CERANOVUS A Series additives contribute towards LEED certification and credits programs.

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CERANOVUS A Series polyethylene and polypropylene additives are made from 100% post consumer and post industrial recycled plastics as certified by SCS Global Services



Advantages of GREENMANTRA's Polypropylene Polymer Additive Compounded with Polypropylene Resin

GREENMANTRA[®] combines TECHNOLOGY with SUSTAINABILITY to create unique CERANOVUS[®] A Series Polypropylene (PP) Additives from recycled plastics.

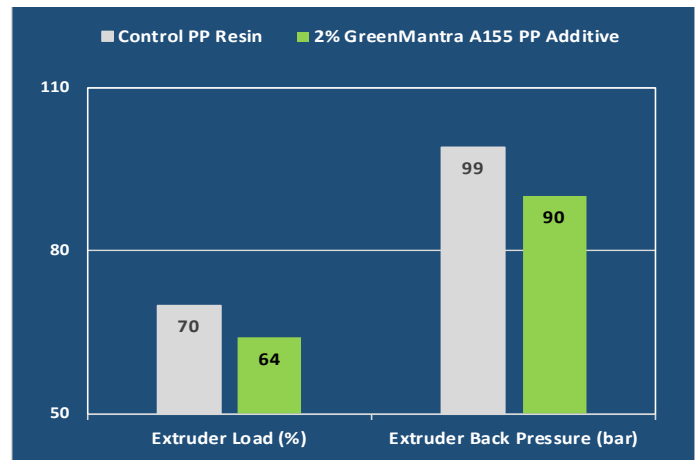
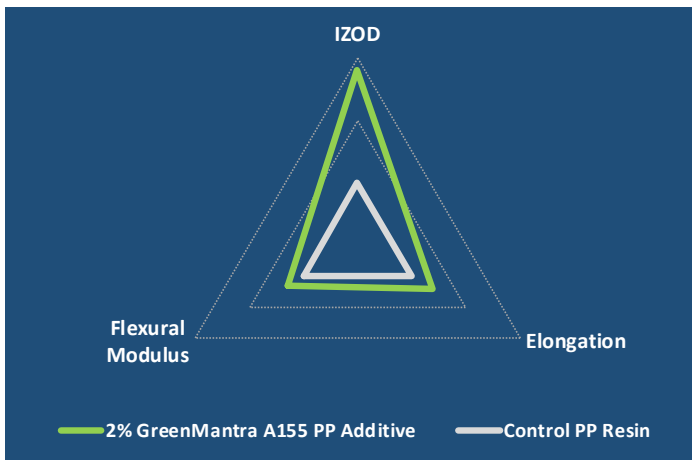
GREENMANTRA[®] has verified the performance advantages of CERANOVUS[®] A155 PP Additive when compounded with a general purpose polypropylene homopolymer resin.

TYPICAL PROPERTIES OF CERANOVUS[®] A155 PP ADDITIVE

Density (g/cm ³) ASTM D1298	Drop Point (°C) ASTM D3954	Penetration @ 25°C in dmm ASTM D1321	Viscosity cps @ 190°C BROOKFIELD
0.90	155	2	75

At 2% loading level, CERANOVUS[®] A155 PP Additive delivers a unique combination of physical property and operational advantages in polypropylene compounds:

- 18% increase in IZOD Impact Strength
- 4% improvement in Elongation at Yield
- 9% reduction in Extruder Load and Back Pressure
- Slight improvement in Flexural Modulus
- Slight increase in Melt Flow Rate



These enhanced physical properties and optimized processing conditions were confirmed through testing at Plastics Forming Enterprises. Detailed results for CERANOVUS A155 PP Additive are available upon request.



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