

EASTMAN

Eastman Aerafin™ polymer

Hot-melt adhesives finally have the olefin polymer they need.



The results of insight™

The next generation of polyolefin polymers is here.

Choosing the right polymer for construction adhesives can be a challenge. When evaluating polymers, the ideal product would enable the optimum blend of good peel strength, processability, low odor, and color. But finding a polymer that enables a formulation to excel at all of these performance characteristics can be difficult.

Eastman Aerafin™ polymers are changing that with a next generation polyolefin that enables hot-melt adhesives to be formulated to have a broad operating window, compatibility with state-of-the-art hot-melt adhesive applicators, and the ability to spray at lower temperatures while delivering the peel strength and low odor the industry has come to expect from the best olefin-based hot-melt adhesives available.

Formulating flexibility

Aerafin polyolefin polymers show compatibility with a range of tackifying resins, allowing formulators the opportunity to choose a resin based on what best suits their formulation needs. With two Aerafin grades offering low to high viscosity, formulators have greater flexibility to respond to customer requirements in a variety of applications.

Aerafin benefits

- Broad processing window with clean-running low-temperature processability
- Low odor
- Good adhesion with excellent peel strength
- Lower tackifier loading than most SBC formulations
- Excellent thermal stability
- Compatibility with hydrocarbon tackifier resins

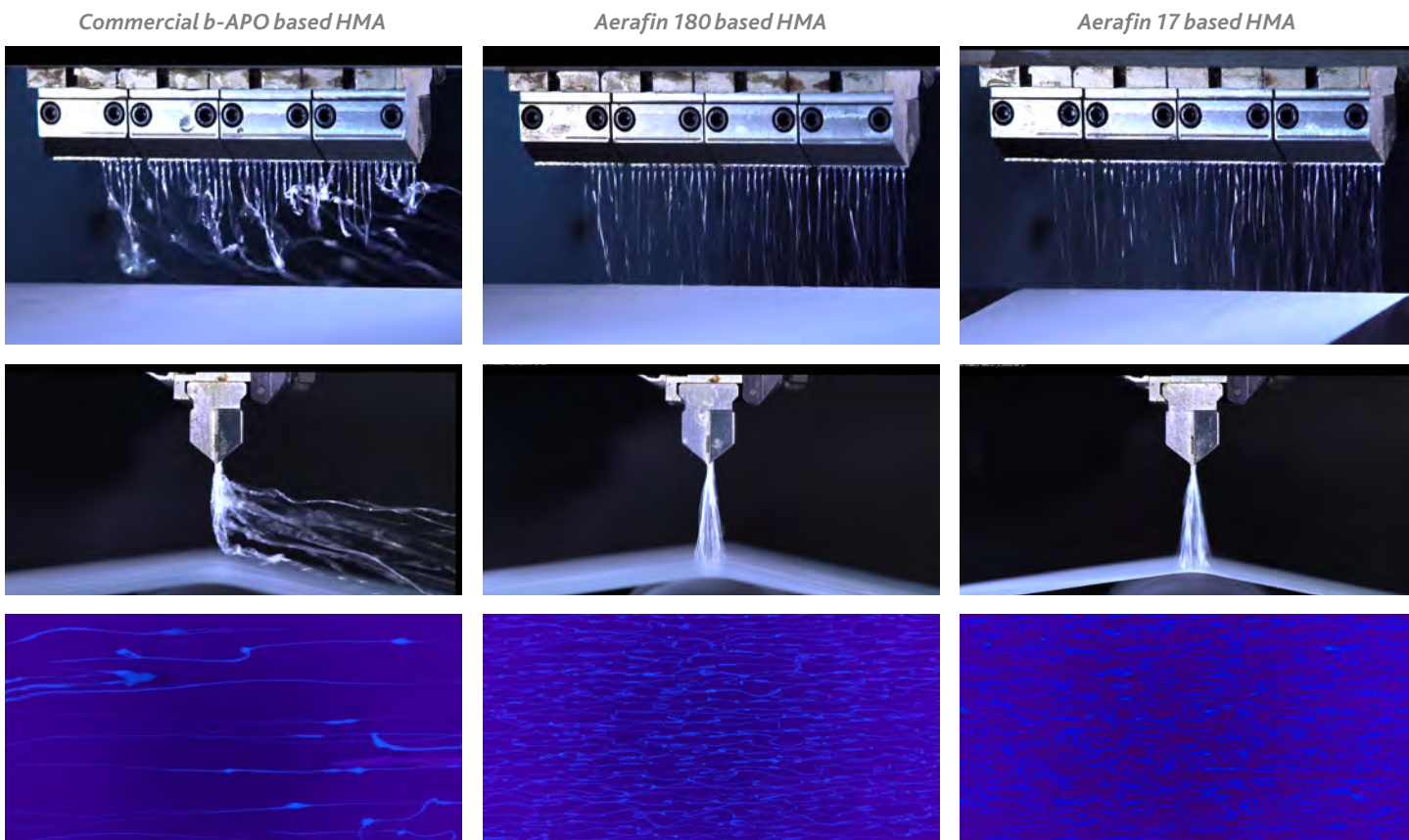
Key market applications

- Hygiene
- Packaging
- Mattresses
- Filters
- Automotive
- Woodworking



Aerafin processability

Low-temperature spray profile comparison using a signature standard nozzle (continuous) at 600 m/min and 3 gsm at a spray temperature of 140°C.*



Process window and peel strength

Property	Eastman Aerafin 180 based HMA	Eastman Aerafin 17 based HMA	Commercial metallocene PE based HMA	Commercial butene APO based HMA	Commercial rubber based HMA
Process window (°C)	140–160	130–160	140–160	150–160	140–160
Peel strength (g/25 mm)	100–150	160–180	150–200	160–180	110–130

Aerafin polymer typical physical properties

Technical data	Aerafin 180	Aerafin 17
Viscosity @ 190°C, cps	15000–20000	1000–2000
Ring & ball softening point (°C)	110–130	120–140
Typical density (g/cm ³)	0.86	0.86
Needle penetration (dmm)	25–31	19–25
Gardner color, neat molten (max.)	2	2
T _g (°C)	–38	–35.8
Tensile strength (psi)	320 ± 20	456 ± 40
Elongation at break	450% ± 150%	43% ± 8%

Note: Aerafins 180 and 17 can be blended to achieve performance targets within these ranges.

*Source: Eastman internal data

Low-temperature sprayability varies dependent on other variables such as spray curtain, line speeds, substrate, etc.

Bond with Eastman.

Eastman Aerafin™ 17 and 180 polymers are a new line of olefins that address brand owners' major issues with SBC-based polymers, including availability and price volatility, thermal stability, and odor.

However, making the switch doesn't mean that brand owners have to make sacrifices in nozzle compatibility, production speeds, low-temperature sprayability, clean running, or achieving quality spray patterns within a broad processing temperature range.

For more than 50 years, Eastman has proven to be a dependable and trusted polymer supplier to the world. With a knowledgeable technical support staff, a reliable global supply, and a strong commitment to innovative product development, Eastman remains poised to meet your long-term needs.

For more information, visit
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