

APAO

Amorphous Poly Alpha Olefin

Amorphous Poly Alpha Olefin (APAO) is a copolymer made by the polymerization of propylene, ethylene, butene-1, etc. APAO can adjust the physical properties of products such as viscosity, softening point, and open time depending on the polymerization rate of each raw material. It is used in various fields covering personal hygiene items which have a high demand for eco-friendly materials, interior materials of automobiles, filters, special packaging, and furniture.

Types of APAO

APAO can be categorized into five product types depending on polymerization ratio.

1 Homopolymer	100% Propylene
2 Copolymer	Propylene - Ethylene
3 Copolymer	Propylene - Butene-1
4 Terpolymer	Propylene - Ethylene-Butene-1
5 Formulated APAO	100% Propylene

Hot Melt Adhesives

Hot melt adhesives can be found everywhere, and APAO hot melts are often used when an Ethylene-Vinyl Acetate (EVA) hot melt cannot meet all requirements. APAO technology is unique and is used in the production of special packaging to furniture manufacturing and automotive assembly.

APAO hot melt adhesives, also called Polyolefin Hot Melt adhesives, are designed to be a lower cost adhesive option for most product assembly applications. Polyolefin hot melts are often used as a lower cost replacement for Polyamide Hot Melt applications.

The benefits of using APAO in hot melt adhesives:

- offer resistance to corrosion and moisture, chemical inertness, and resistance to UV rays.
- have high heat resistance, while also being able to function over a wide range of temperatures.
- durable and reliable in both interior and exterior applications.

Features of APAO

- excellent adhesion
- excellent heat resistance
- excellent cold resistance
- low-cost
- easy adjustment of physical properties

Typical Applications

- Automotive: Loadliner, Headliner; Headlamp Bonding; Sound Deadening
- Hygiene: Baby Diaper; Adult Incontinence; Feminine Care; Pet Training Pads
- Packaging: Corrugated Box, Speciality Packaging
- Product Assembly: Mattress; Furniture; Carpet Backing
- Wire & Cable: Filling & Flooding; Fiber Optic
- Others: Filtration; Polymer Modification; Pipe Wrap

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Typical Properties

Product	Polymer type	Viscosity cPs	Softening point °C	Tensile Strength Mpa
RT 2115	Homopolymer	1,500	152	2.3
RT 2180	Homopolymer	8,000	157	2.6
RT 2215	Ethylene Copolymers	1,500	143	0.9
RT 2280	Ethylene Copolymers	8,000	146	1.1
RT 2315	Ethylene Copolymers	1,500	141	0.6
RT 2330	Ethylene Copolymers	3,000	141	0.8
RT 2535	Ethylene Copolymers	3,500	132	0.3
RT 2715	Ethylene Copolymers	1,500	110	0.6
RT 2730	Ethylene Copolymers	3,000	110	0.6
RT 2780	Ethylene Copolymers	8,000	110	0.7
RT 5250 P	Terpolymer	27,000	161	1.2
RT 51200 P	Terpolymer	120,000	165	1.5