PRODUCT OVERVIEW

PA-120

PVC PROCESSING AID

Medium molecular weight | Fusion & melt-strength enhancement

PA-120 is a proprietary PVC processing-aid blend combining **styrenic polymer components, copolymers and graft polymers** with selected fusion promoters. The medium molecular weight system is designed to shorten fusion time, strengthen the melt and support uniform processing. It is also designed to provide a **secondary impact-modifying contribution**; the extent of improvement depends on the formulation and requires finished-product testing.

FASTER FUSION

Designed to accelerate the development of a fused PVC melt.

STRONGER MELT

Designed to improve melt cohesion during shaping and drawing.

MORE UNIFORM PROCESSING

Targets a more homogeneous melt and consistent material response.

SECONDARY IMPACT MODIFICATION

Designed to support impact resistance; verify in the final formulation.

Product profile and proposed specification targets

PROPERTY	PA-120
Molecular weight class	Medium
Appearance	White powder*
Aerated bulk density	0.35-0.60 g/cm³*
Volatile matter	≤ 1.0 wt%*
Sieve residue, 30 mesh	≤ 2.0 wt%*
Secondary function	Impact-modifying contribution (qualitative)
Standard packaging	20 kg net per bag

* **Proposed specification targets; not measured results or approved release limits.** Validate on production batches before commercial adoption. Bulk density refers to powder packing density. No numeric viscosity or impact-strength value has been assigned.

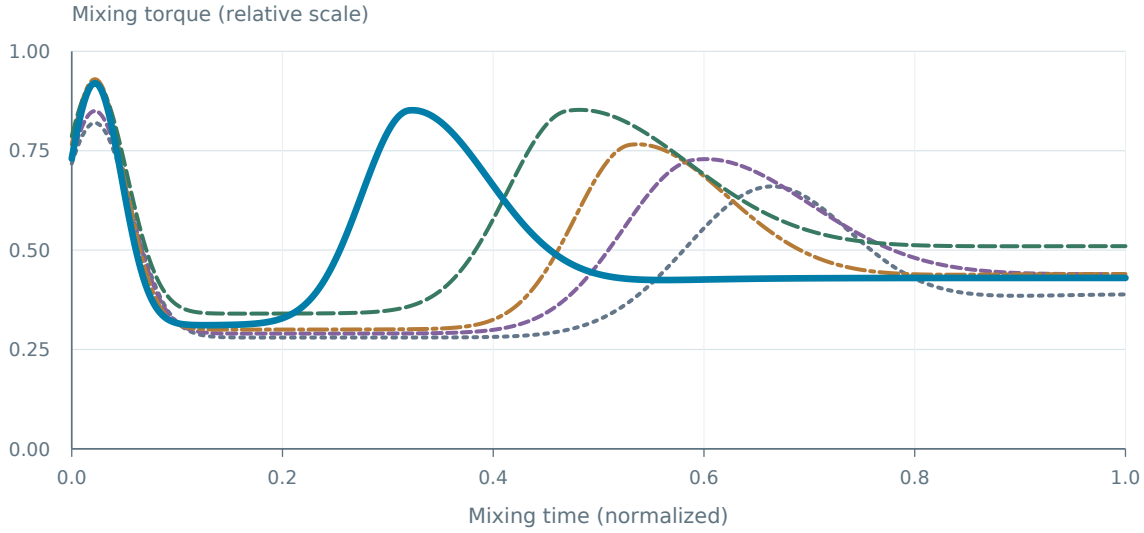
PROCESSING BEHAVIOR

Fusion & melt performance

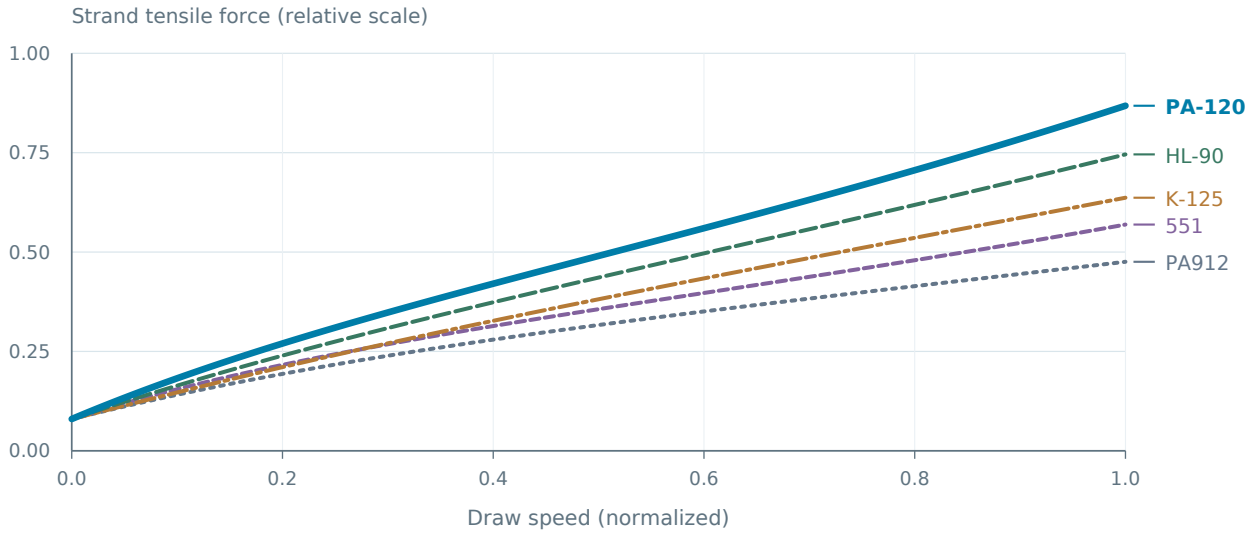
ILLUSTRATIVE DESIGN TARGETS / FIVE-GRADE OVERVIEW

ROSHA PA-120 — HL-90 — LG PA912
Dow K-125 — Arkema 551

01 Fusion development



02 Melt-strength response



Curve positions are illustrative design targets; no experimental ranking is established. Fusion torque is not a direct measure of melt strength or impact resistance.

APPLICATION AND FORMULATION GUIDANCE

Application opportunities

Select the formulation and process window around the finished product requirements.

PVC APPLICATION	INTENDED CONTRIBUTION	TRIAL PRIORITY
Rigid pipe extrusion	Fusion development and melt uniformity.	Check fusion, output stability, surface finish and finished-pipe performance.
Injection-molded fittings	Consistent plasticization and melt cohesion.	Monitor screw recovery, cavity filling, weld lines, color and deposits.
Window / door profiles and panels	Melt integrity during die flow and calibration.	Check die pressure, swell, dimensions, surface and impact performance.
Solid sheet and calendered film	Melt homogeneity and cohesive sheet formation.	Assess roll-bank behavior, drawability, surface defects and thickness consistency.
Foamed board and profiles	Potential fusion-promoting component in an optimized aid package.	Confirm cell stability and density. Do not assume replacement of a high-MW foam regulator.
Wire and cable compounds	Potential processing benefit in selected plasticized formulations.	Verify extrusion, thermal aging, migration and electrical requirements.

Quality control

Confirm powder specifications on production batches. Evaluate fusion and melt strength under matched test conditions. Verify the secondary impact-modifying contribution on finished parts; any reduction in a dedicated impact modifier requires separate validation.

Packaging and storage

Supplied in **20 kg net bags**. Store closed in original packaging in a dry, covered area, protected from moisture, direct sunlight and excessive heat. Reseal opened bags and prevent contamination. Shelf life remains to be established.

Handling: Consult the product SDS before use. Control dust and use suitable ventilation and protection. PA-120 does not replace a heat stabilizer. Regulated end uses require product-specific qualification.

ROSHA POLYMER | Technical & commercial enquiries

No. 5, 2nd Golbarg, Narenjestan Blvd., Shams-Abad Industrial Estate, Tehran
Tel: +98-2156231972