TECHNICAL DATA SHEET · TDS-ACR-EN

Acrylic Processing Aids (ACR)

Fusion promotion, melt strength, metal release and optical clarity — four grades on one viscosity ladder.

Acrylate copolymer | White free-flowing powder | Tested per ISO standards

GRADE RANGE
4 Grades
ACR-401 · HL-125
ACR-175 · PA-20

Version V1.0 · Effective 2026-10-26

CHEMICAL NAME	APPEARANCE	INTRINSIC VISCOSITY	FUNCTION	DOCUMENT VERSION
Acrylate copolymer	White free-flowing powder	0.7 – 6.6	Fusion / release / clarity	V1.0

01 TECHNICAL SPECIFICATIONS

Acrylate copolymers that speed up gelation, raise melt strength and keep dies clean. Intrinsic viscosity is the lever — pick the grade by what the line is doing wrong.

GRADE	INTRINSIC VISCOSITY	BULK DENSITY G/CM³	SIEVE RESIDUE 30 MESH %	VOLATILE %	FUNCTION
ACR-401	4.5 – 6.0	0.45 ± 0.10	≤ 2.0	≤ 1.3	General fusion promotion; raises melt strength and throughput
HL-125	4.5 – 6.6	0.45 ± 0.10	≤ 2.0	≤ 1.3	Higher-viscosity general grade for demanding extrusion
ACR-175	0.7 ± 0.2	0.45 ± 0.10	≤ 2.0	≤ 1.5	Lubricating and metal release; no plate-out
PA-20	3.0 ± 0.2	0.45 ± 0.10	≤ 2.0	≤ 1.3	Transparent grade; keeps clarity in clear compounds

Test methods — intrinsic viscosity ISO 1628-1 · bulk density ISO 60 · sieve residue ISO 6145 · volatile matter ISO 1269.

02 KEY FEATURES & ADVANTAGES

Fusion at lower temperature
ACR-401 and HL-125 accelerate gelation evenly without pushing barrel temperatures — same fusion at a cooler set point.

Melt strength
Suppresses melt fracture, die lines and sharkskin at higher output, so surface defects are fixed in the melt, not at the die.

Release without migration
ACR-175 works at the metal interface instead of migrating — less plate-out, longer cleaning intervals.

Clarity kept
PA-20 disperses without hazing, so clear compounds stay clear instead of trading optics for fusion.

03 APPLICATIONS & RECOMMENDED DOSAGE

WHERE THEY RUN

- **Window profiles**, fencing and siding
- **Clear sheet, clear film** and transparent packaging
- **Bottle** and **foam board**
- **Foam profile** and foamed WPC
- Calendered sheet and blown film
- Pipe and general rigid vinyl extrusion

RECOMMENDED DOSAGE

PER 100 KG PVC · QUOTED FOR ACR-175

1.0 – 2.5 kg

General and transparent grades are dosed to the fusion level your formulation needs.

Incomplete fusion, low impact	**ACR-401 / HL-125**
Die lines, sharkskin, melt fracture	**Raise melt strength**
Plate-out, frequent die cleaning	**ACR-175**
Haze in a clear compound	**PA-20**

04 HANDLING, STORAGE, PACKAGING & COMPLIANCE

HANDLING & STORAGE

- **Processing:** add with PVC resin and stabilisers in the high-speed mixer; no change to the standard processing window.
- **Storage:** cool, dry and ventilated; keep bags sealed.
- **Shelf life:** two years unopened.

PACKAGING

- **Standard:** 25 kg PP valve bag with PE liner.
- **Bulk:** 500 kg super sack available on request.
- Reseal partly used bags to avoid moisture pickup.

EU REACH Compliant
Not listed on the SVHC Candidate List.

RoHS 2.0 Compliant
All restricted substances below limit requirements.

Heavy-Metal Free
Formulated without lead, cadmium and barium.

For complete safety information refer to the corresponding Safety Data Sheet (SDS).

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The data contained in this document are typical values obtained under standard laboratory conditions and are given for reference only. Actual performance depends on the customer's specific formulation, processing conditions and application environment. The customer shall verify the suitability of the product through independent tests. FINE-ADD reserves the right to update this document without prior notice.