

**PARALOID™ K-136 Processing Aid****Description**

PARALOID™ K-136 is a high molecular weight acrylic polymer used as a processing aid in PVC formulation. PARALOID™ K-136 Processing Aid helps converters to meet the most demanding requirements in terms of quality and surface finish of PVC articles. PARALOID™ K-136 Processing Aid helps to improve processing of PVC formulation while maintaining color and clarity of PVC products.

Applications

PARALOID™ K-136 Processing Aid is recommended in PVC formulation for a wide range of applications such as extruded profiles, calendered films and sheets, and injection-molded articles. It can be used in Transparent and Opaque PVC Formulation.

With its unique combination of features, PARALOID™ K-136 Processing Aid has been established as an industry standard for high K-value PVC used in building and construction markets. Thanks to its fusion/gelation and rheological properties, PARALOID™ K-136 Processing Aid is widely used in rigid PVC formulation designed for window profiles and injection-molded parts, especially as it also reduces the risk of gate blush and improves surface finish.

Regional Product availability

- Europe Middle East Africa India
- Asia Pacific

Typical properties

PARALOID™ K-136 Processing Aid is a free-flowing powder.

Physical appearance	White powder
Bulk density aerated (g/cm ³)	0.43 - 0.55
Volatiles (% max)	1
Powder flowability (funnel diameter, mm)	25
Fines level, through 45 micron (%)	12

Key attributes

- Promote fusion and increase gelation level
- Improve melt homogeneity
- Increase melt strength
- Increase melt elongation
- Improve melt elasticity
- Reduce melt fracture and improve surface finish (smoother surface)



Technical Data Sheet

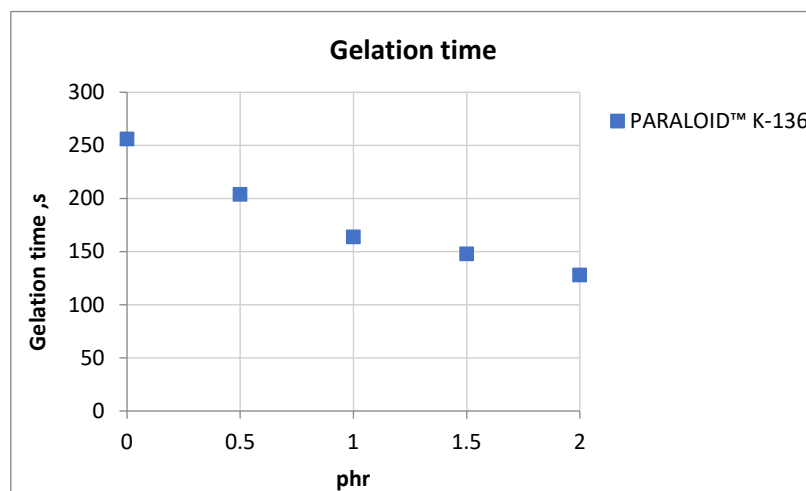
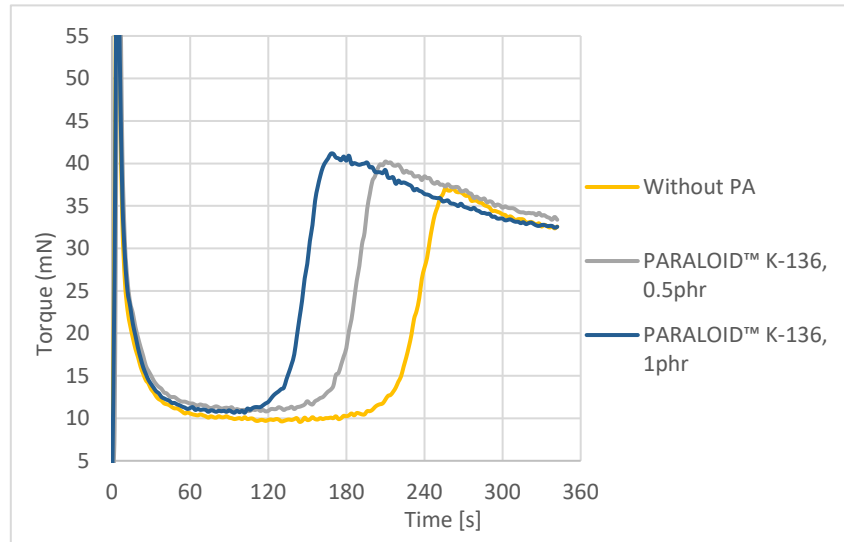
Rheology and Processing

Data below have been generated in CaZn stabilized PVC formulation for extruded profile applications.

Brabender internal mixer test

This test allows to characterize the fusion and gelation behavior ("gelation curve") of PVC formulation.

Mixing test conditions: 180°C, 50 rpm, 55 grams.





Technical Data Sheet

Melt strength and Melt elongation

Rheotens test

Data below have been generated in CaZn stabilized PVC formulation for extruded profile applications.

The Rheotens device combined with capillary rheometer allows to measure elongation and stress of polymer melt. When the Rheotens device is used directly after the extruder, it allows for the characterization of melt visco-elastic properties.

Test conditions:

Temperature: 195°C

Apparent shear rate: 31 s⁻¹

Die: 3 mm diameter

Acceleration: 1.2mm/s²

The die swell is measured as the ratio of the diameter of the extrudate to the diameter of the die.

The addition of PARALOID™ K-136 Processing Aid significantly improves melt-strength and melt-elongation. This translates into reduced melt fracture and improved surface finish.

	PARALOID™ K-136 1phr
Stress at break (N)	2.22
Standard deviation	0.18
Melt elongation (%)	462
Standard deviation	81

Product Packaging

The standard package is either a unitized pallet of 20-25 kg bags or 500-900 kg super sacks/big bags/FIBC bags.

Please consult a Dow representative for specific package availability for this product.

Quality management system

The Dow Chemical Company (Dow) and its subsidiaries have implemented a comprehensive quality management system pursuant to Good Manufacturing Practices (GMP) and various quality management standards including ISO 9001. An overview of **The Dow Quality Management System Manual** can be obtained at the following Internet web site – <http://www.dow.com/en-us/about-dow/our-company/beliefs-and-culture/quality-culture>. As part of that system, the Dow Plastics Additives business maintain ISO 9001 registration for most of our manufacturing plants. A copy of these certificates available upon request.



Technical Data Sheet

Storage and handling precautions

Store unopened in original packaging at ambient temperature. If material is opened, it should not be left exposed and should be used within one month. When stored correctly in the original packaging, the shelf life is 3 years from date of manufacture.

Before using this product, consult the Safety Data Sheet (SDS) for details on product hazards, recommended handling precautions and product storage. Contact Dow for copies of the SDS and for more information on this product. Information contained in a TDS document cannot substitute a SDS.

Disposal considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

Medical Applications Restrictions

Dow prohibits sale into certain medical applications. Please check with Dow if you believe your application could be in violation of this policy.

Customer Notice

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Regulatory Information

If your application includes a sensitive application such as food contact or drinking water requirements or if you need other regulatory information, please contact your local Dow representative.

Contact information:

If you should have any questions regarding this notice, please contact your local Dow Representative or www.dow.com/contact

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