



Durastrength[®] 350

Acrylic Impact Modifier

PRODUCT DESCRIPTION

Durastrength[®] 350 impact modifier is a high performance acrylic impact modifier that imparts superior impact properties to rigid vinyl products. It was designed to give the impact resistance necessary to pass critical impact test procedures, while maintaining the excellent weatherability, processability and flow properties of Durastrength[®] 200 impact modifier.

TYPICAL PHYSICAL PROPERTIES

Physical Form	White Powder
Specific Gravity	1.1
Bulk Density	0.45 g/cc
Particle Size	100% < 20 mesh
Percent Volatiles	< 1.2%

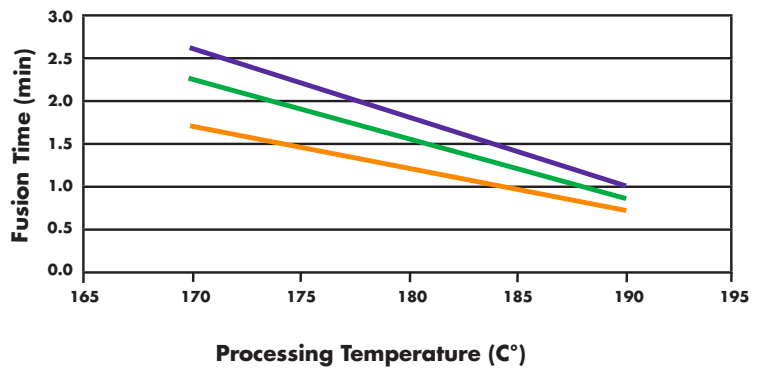
PRODUCT BENEFITS

Because it was developed with the customer in mind, Durastrength[®] 350 brings a wealth of benefits to compounders and manufacturers such as:

1. Durastrength[®] 350 impact modifier provides superior long-term weather resistance while retaining impact resistance and color retention.
2. Durastrength[®] 350 impact modifier imparts excellent room temperature impact resistance while maintaining industry required low-temperature impact resistance.

3. Durastrength[®] 350 impact modifier provides a broad process window allowing flexibility in processing temperature and output.
4. Durastrength[®] 350 impact modifier offers faster fusion over competitive acrylic impact modifiers without the need for additional process aids.

Fusion Time Versus Processing Temperature



Legend: ■ Durastrength[®] 350 IM ■ Competitor High Rubber IM ■ Competitor Classic Rubber IM

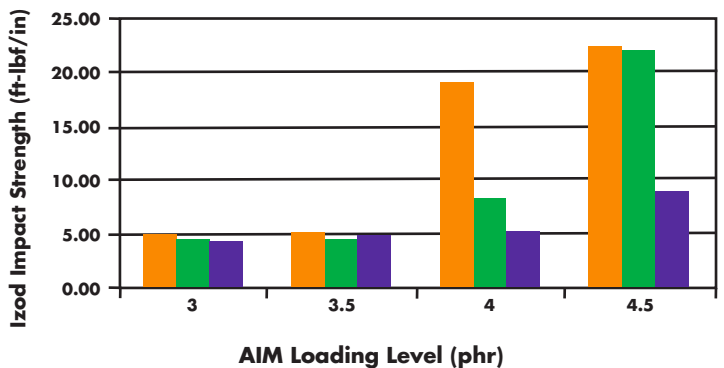
SUGGESTIONS FOR USE

Durastrength[®] 350 impact modifier is ideally suited for vinyl window profile, siding, fencing, decking, pipe, and conduit. The low melt viscosity and rapid fusion characteristics of Durastrength[®] 350 impact modifier are also ideal for difficult injection molding applications.

Durastrength[®] 350 impact modifier is recommended for use in tin, lead, and mixed-metal stabilized profile applications where enhanced room and cold-temperature impact resistance is required. As with all impact modifiers for PVC, proper formulation is required to develop the proper shear and mixing during extrusion so that impact properties are optimized.

Prospective customers should evaluate Durastrength[®] 350 impact modifier in their own laboratories to establish optimum conditions for use in their processes and applications. Arkema's Technical Service Team is available to discuss your application requirements, provide formulation guidance and laboratory testing as needed.

Izod Impact (Window Profile Formulation)



Legend: ■ Durastrength[®] 350 IM ■ Competitor High Rubber IM ■ Competitor Classic Rubber IM

STARTING FORMULATION RECOMMENDATIONS

WINDOW PROFILE	
PVC Resin (K-65 to K-67)	100.0 phr
Organotin Stabilizer (17-24% Tin)	1.0 – 1.5
Calcium Stearate	1.0 – 1.5
Paraffin/Ester Lubricant	0.8 – 1.5
Oxidized Polyethylene	0.0 – 0.2
Durastrength® 350 Impact Modifier	4.25 – 5.25
Plastistrength® 530 / 550 Process Aid	0.3 – 1.0
Plastistrength® 770 Process Aid	0.2 – 0.5
Calcium Carbonate (0.7µm)	3.0 – 8.0
Titanium Dioxide	9.0 – 10.0
CUSTOM INJECTION MOLDING	
PVC Resin (K-55)	100.0 phr
Organotin Stabilizer (17-24% Tin)	2.0 – 2.5
Paraffin Wax (165°F mp)	1.0 – 1.5
Calcium Stearate	1.5 – 2.0
Durastrength® 350 Impact Modifier	6.5 – 10.0
Plastistrength® 550 Process Aid	1.5 – 2.0
Plastistrength® 770 Process Aid	0.5 – 1.0
Calcium Carbonate (0.8µm)	0.0 – 5.0
Titanium Dioxide	2.0 – 5.0

PACKAGING

Durastrength® 350 impact modifier is packaged in 50 lb bags and 1800 lb supersacks.

ENVIRONMENTAL AND SAFETY INFORMATION

BEFORE HANDLING THIS MATERIAL, READ AND UNDERSTAND THE MSDS (MATERIAL SAFETY DATA SHEET) FOR ADDITIONAL INFORMATION ON PERSONAL PROTECTIVE EQUIPMENT AND FOR SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION.

For Environmental, Safety & Toxicology information, contact our Customer Service Department at 1.800.331.7654 in the US or (+33) (0) 1.49.00.88.02 in Europe to request a Material Safety Data Sheet.

MORE TECHNICAL INFORMATION AVAILABLE

Ask your Arkema account manager for further information about other high quality Arkema additives for use in PVC resins, PVC alloys and other polymer systems. Arkema produces a full line of impact modifiers, process aids and epoxidized vegetable oils. In addition, Arkema's Technical Service staff is available to assist compounders and processors to solve formulation and processing problems.

Durastrength® Impact Modifiers

Durastrength® acrylic impact modifiers deliver outstanding impact characteristics, a wide processing window and excellent weatherability to outdoor durable applications. The Durastrength® 200 & 300 series acrylic impact modifiers are designed for PVC applications such as window profile, siding and pipe. The Durastrength® 400 series acrylic impact modifiers have been optimized for polycarbonate and its main alloys (PC/PBT, PC/ABS). Durastrength products have been an industry standard for over 40 years, and through a strong innovation pipeline and excellent technical support have evolved with the voice of the customer in mind.

Plastistrength® Process Aids

Plastistrength® process aids offer producers of rigid and flexible PVC greater product uniformity by improving compound fusion and flow during extrusion, injection molding and thermoforming. Variances in wall thickness and surging can be greatly minimized with Plastistrength® process aids. Plastistrength® acrylic process aids for engineering resin aid in processability and improve surface characteristics such as shark skin, gate blush and jetting.

Clearstrength® Impact Modifiers

Clearstrength® MBS impact modifiers provide outstanding impact characteristics in a variety of applications. The Clearstrength® C series for PVC is designed for applications where high transparency and impact are required or applications where higher impact is required and weatherability is not an issue. The Clearstrength® W series combines excellent UV resistance with high impact for clear, weatherable PVC applications such as clear roofing sheets or furniture films. The Clearstrength® E series for engineering resin compounds has been developed to withstand severe processing conditions and bring high impact performance, especially at low temperatures. Applications include PC/ABS monitor housings, PC/PBT automotive bumpers and PC cell phone housings among a host of others.

Biostrength® Modifiers for Sustainable Polymers

The Biostrength® product line of impact modifiers, melt strengtheners and metal release agents are designed to improve properties and enhance processability of polylactic acid (PLA) and other biopolymers and biopolymer compounds for use in sheet extrusion, calendaring, blow molding, thermoforming and foamed applications. Biopolymer applications can now achieve the physical properties and economy of traditional petroleum-based engineering resins, so you can confidently deliver a more sustainable product.

Vikoflex® Epoxy Plasticizers

The Vikoflex® line of epoxy plasticizers is derived from renewable resources, like epoxidized linseed oil, soybeans and tall oil fatty acid esters. Arkema has the ability to produce products with exacting specifications to meet varied customer requirements in applications such as PVC plasticization, acid and mercaptan scavenging, specialty coatings, adhesives & urethanes, reactive diluents, PU flexible foam and intermediates for surfactants and lube & fuel additives.

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