

# DURASTRENGTH®

TDS/TECHNICAL DATA SHEET

## Durastrength® 506

### Multifunctional Acrylic Impact Modifier

#### PRODUCT DESCRIPTION

Durastrength® 506 acrylic impact modifier imparts excellent impact properties and processability to rigid vinyl products. Based on the unique chemistry of Durastrength® 200 impact modifier which has been the leading impact modifier used in exterior durable building products for over 35 years, Durastrength® 506 impact modifier offers excellent room and low temperature impact in combination with ease of processing. The unique properties of Durastrength® 506 impact modifier make it especially suitable for injection molding applications. Additionally, the excellent processability, flawless surface finish, and high gloss imparted by Durastrength® 506 impact modifier make it a natural fit for window and door profile applications where these properties are key.

#### TYPICAL PHYSICAL PROPERTIES

Physical Form	White Powder
Specific Gravity	1.09
Bulk Density	0.50 g/cc
Particle Size	10% Max on 50 Mesh
Percent Volatiles	1.2% Max

#### PRODUCT BENEFITS

1. For today's high output extrusion and large extruders, the low melt viscosity and fusion promoting characteristics of Durastrength® 506 impact modifier allows for smooth processing and excellent impact properties at low use levels, even when the formulation contains high levels of filler.

2. Durastrength® 506 impact modifier has been extensively tested for long-term weather resistance, retaining excellent impact resistance and color. Similar weathering benefits are seen in translucent applications.

3. The chemical composition of Durastrength® 506 impact modifier imparts excellent low-temperature impact.

4. Vinyl formulations using Durastrength® 506 impact modifier exhibit reduced melt viscosity which helps to reduce extrusion pressures and in turn prolong screw and barrel life.

5. The wide processing window of Durastrength® 506 impact modifier assures a consistently flawless surface finish.

#### PRODUCT BENEFITS

##### Rigid Siding Capstock

PVC Resin (K-67 to K-67)	100.0 phr
Methyl Organotin Stabilizer	1.0 – 1.5
Internal Lubricant	1.0 – 1.5
External Lubricant	1.0 – 1.2
Oxidized Polyethylene Wax	0.1 – 0.2
<b>Durastrength® 506 Impact Modifier</b>	<b>5.5 – 7.0</b>
Plastistrength® 770 Process Aid	0.5 – 1.0
Calcium Carbonate (0.7µm)	0.0 – 5.0
Titanium Dioxide	9.0 – 10.0

##### Injection Molding Fittings

PVC Resin (K-55 to K-58)	100.0 phr
Butyl Organotin Stabilizer	1.5 – 2.0
Calcium Stearate	1.0 – 1.5
Paraffin Wax (165°F mp)	1.0 – 1.5
<b>Durastrength® 506 Impact Modifier</b>	<b>3.0 – 5.0</b>
Calcium Carbonate (0.7µm)	0.0 – 5.0
Titanium Dioxide	0.0 – 1.0
Pigments	As Needed

#### SUGGESTIONS OF USE

Durastrength® 506 impact modifier is recommended for applications such as injection molding and window profiles where good outdoor weathering and impact resistance are critical properties. In today's high output extrusions, Durastrength® 506 impact modifier shows excellent processability, leading to optimized fusion and impact properties.

Customers should evaluate Durastrength® 506 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.

#### PACKAGING

Durastrength® 506 impact modifier is packaged in 20 lb bags and 1700 lb bulk bags.

## ENVIRONMENTAL AND SAFETY INFORMATION

Before handling this material, read and understand the MSDS (Material Safety Data Sheet) / SDS (Safety Data Sheet) for additional information on safety, health and environmental information. The MSDS/SDS are available on our website [www.arkema.com](http://www.arkema.com) or upon request at our Customer Service Department. Arkema believes strongly in Responsible Care® as a public commitment.

## MORE TECHNICAL INFORMATION AVAILABLE

**Ask your Arkema account manager for further information on high quality Arkema additives for use in PVC, PC, PBT, ABS, PLA Epoxy, (meth)-acrylic and other polymer or thermosetting systems. Arkema produces a full line of impact modifiers and processing aids. In addition, Arkema's Technical Service staff is also available to assist compounders and processors with formulation and processing advice.**

### **Durastrength® Impact Modifiers**

Durastrength® acrylic impact modifiers deliver outstanding impact characteristics for outdoor durable applications in PVC and Engineering Resins.

### **Plastistrength® Process Aids**

Plastistrength® Process Aids offer producers a complete line of melt strengtheners and metal release agents for PVC and Engineering Resins. Plastistrength® process aids can improve fusion, surging, and aesthetics.

### **Clearstrength® Impact**

Clearstrength® Impact Modifiers are designed for extreme impact or impact/clarity combination in PVC and Engineering Resins. Clearstrength® Impact Modifiers provide superior toughening effect in epoxy and (meth)-acrylic resins.

### **Biostrength® Additives**

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 compounds.

## FOR MORE INFORMATION CONTACT

Please contact your local account manager or our headquarters:

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