

Durastrength[®] 527

Multifunctional Acrylic Impact Modifier

PRODUCT DESCRIPTION

Durastrength[®] 527 is a high performance, highly efficient impact modifier designed for use in window profiles, capstock solutions, and other weatherable vinyl applications. Durastrength[®] 527 enables a broad processing window and best-in-class impact strength based on efficiency.

TYPICAL PHYSICAL PROPERTIES

Physical Form	White Powder
Specific Gravity	1.1
Bulk Density	0.48 gm/cc
Particle Size	15% Max on 50 Mesh
Volatiles	1.2% Max

PRODUCT BENEFITS

1. Durastrength[®] 527 delivers industry-standard impact/mechanical strengths at significantly lower loading levels (see Figure 1) compared to other Durastrength[®] impact modifiers or a typical competitive product.

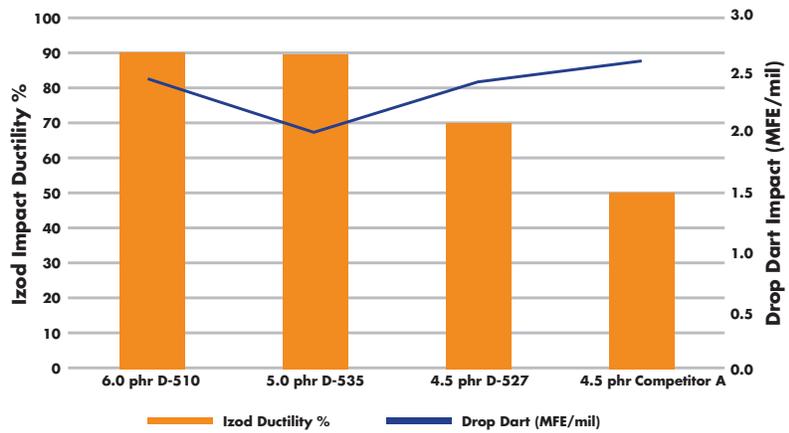


Figure 1. Impact Modifier Mechanical Performance

2. Formulations incorporating Durastrength[®] 527 impact modifier meet or exceed industry standards for weathering performance. Figure 2 details QUV data comparing Durastrength[®] 527 to other Durastrength[®] impact modifiers as well as a typical competitive product. Performance is consistent across all technologies and rubber content.

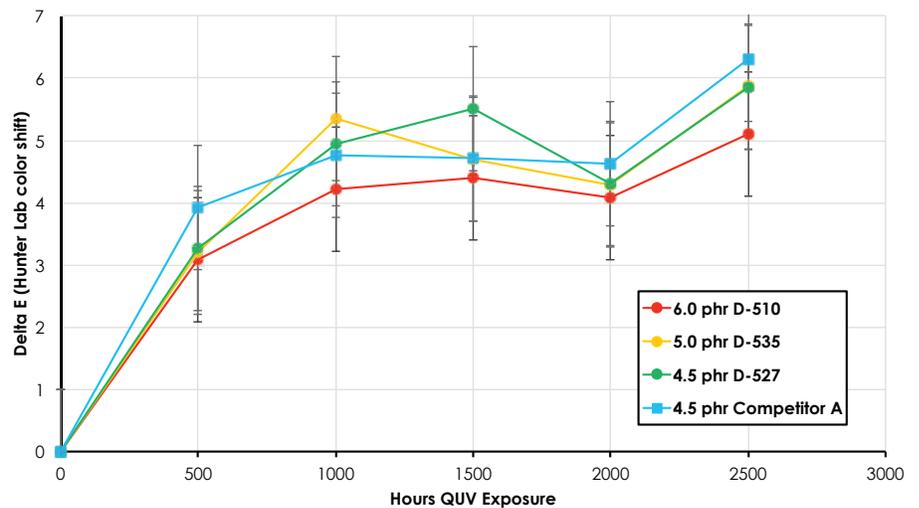


Figure 2. QUV Weathering Data (2500 Hours)

PRODUCT BENEFITS

3. Durastrength® 527 impact modifier offers rheology behavior that meets industry standards. Figure 3 shows no significant differences in fusion time or torque for Durastrength® 527 in a weatherable profile formulation compared to other Durastrength® impact modifiers or a typical competitive product.

Figure 3. **Brabender Rheology Expanded Fusion and Thermal Stability**

Additive	PHR	170°C / 75 RPM / 65 g		190°C / 75 RPM / 65 g			
		Fusion Time (sec)	Fusion Torque (m g)	Fusion Time (sec)	Fusion Torque (m g)	Eq. Torque (m g)	Stability Time (min)
Durastrength® 510	6.0	46	4364	30	3810	1723	8.4
Durastrength® 535	5.0	44	3997	22	3616	1757	7.6
Durastrength® 527	4.5	48	3881	30	3638	1723	8.4
Competitor A	4.5	44	3870	26	3645	1662	7.7

TYPICAL FORMULATION RECOMMENDATION

Component	PHR
PVC (K=67)	100
19% methyl Sn Stabilizer	1.0
Calcium Stearate	1.2
Paraffin Wax (165°F mp)	1.0
Oxidized PE Wax	0.1
Durastrength® 527	5.0
CaCO ₃	3.0
TiO ₂	10.0
Total	121.3

PACKAGING

Durastrength® 527 is packaged in 25 kg bags and 1,800 lb totes.

ENVIRONMENTAL AND SAFETY INFORMATION

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

The SDS are available on our Website 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 and other polymer systems. Arkema produces a full line of impact modifiers, processing aids and epoxidized vegetable oils. 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 Modifiers

Clearstrength® MBS impact modifiers are designed for extreme impact or impact/clarity combination in PVC and Engineering Resins.

Biostrength® Additives

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 compounds.

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