**TECHNICAL DATA SHEET** 

## Plastistrength® PD-1158

## Acrylic Process Aid

#### PRODUCT DESCRIPTION

Plastistrength® PD-1158 process aid is an innovative acrylic additive that provides outstanding melt strength for cellular PVC formulations. This property leads to excellent foam density, a homogeneous cellular structure, and a high-quality surface finish. Plastistrength® PD-1158 process aid has been specifically designed for use in thick PVC foam sheet and is also very effective in other PVC applications.

#### **TYPICAL PHYSICAL PROPERTIES\***

Physical Form	White Powder
Specific Gravity	1.11
Bulk Density	0.5 g/cm <sup>3</sup>
Particle Size	2% retained on 40 Mesh
Percent Volatiles	1% by weight

 $<sup>\</sup>ensuremath{^{\star}}\xspace$  Typical properties not to be construed as specifications

#### **PRODUCT BENEFITS**

#### Melt strength and foam density

Due to its innovative chemistry, Plastistrength® PD-1158 process aid significantly improves the melt strength and rheological characteristics of cellular PVC formulations resulting in lower foam density.

#### **Usage level**

Plastistrength® PD-1158 process aid offers excellent value in formulations by increased efficiency and dosage reduction compared to traditional and ultra-high molecular weight (UHMw) PVC process aids.

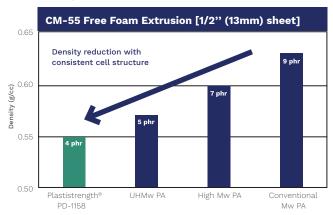


Figure 1: Rigid PVC sheet foam density versus loading level

#### **PRODUCT BENEFITS**

#### Cell structure and surface finish

Use of Plastistrength® PD-1158 process aid results in more uniform and finer cell structure compared to other commercially available process aids by capturing an optimum amount of gas evolved from the blowing agent. The additive's tailored chemistry allows for a smooth surface finish as well as exceptional weatherability, printability and paintability.

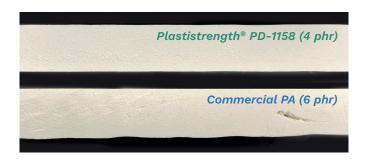


Figure 2: The cell structure and surface finish in rigid PVC foamed sheet made with Plastistrength® PD-1158 process aid (top), and a typical commercial process aid (bottom)

#### SUGGESTIONS FOR USE

Plastistrength® PD-1158 process aid is recommended for all vinyl foam applications. The product's ability to deliver excellent melt strength in PVC formulations makes it an ideal process aid for both celuka and free foam applications. With improved efficiency versus competitive technologies, Plastistrength® PD-1158 process aid can be used at reduced loading levels in PVC sheet/signage, deck boards, moldings and various other cellular products. Arkema's Technical Service Team is available to discuss your application requirements, provide formulation guidance, and lab testing as needed.

#### **PACKAGING**

Plastistrength® PD-1158 process aid is packaged in 20 kg bags (500 kg per pallet) and 450 kg bulk bags (900 kg per pallet).



#### **ENVIRONMENTAL AND SAFETY INFORMATION**

Before handling this material, read and understand the Safety Data Sheet (SDS) for additional information. The SDS is 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, epoxies, (meth)-acrylics, and other thermoplastic 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 recommendations.

#### **Durastrength® Impact Modifiers**

Durastrength® acrylic impact modifiers deliver outstanding impact characteristics for outdoor durable applications in PVC, engineering resins and thermosets.

#### 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® impact modifiers are designed for extreme impact or impact/clarity combination in PVC and engineering resins. Clearstrength® impact modifiers provide superior toughening effect in thermosetting resins.

#### **Biostrength® Additives**

Biostrength® impact modifiers are designed to improve properties and enhance processability of polylactic acid (PLA) and other biopolymer compounds.

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