PLASTISTRENGTH®

TDS/TECHNICAL DATA SHEET

Plastistrength® 580
Acrylic Process Aid

PRODUCT DESCRIPTION

Plastistrength® 580 process aid is an ultra-high molecular weight acrylic additive that provides exceptional melt strength. This property leads to excellent foam density and cellular structure, with a quality surface finish, for cellular PVC building products. Plastistrength® 580 process aid has been specifically designed for use in thick PVC foam sheet but also proven effective in other applications.

TYPICAL PHYSICAL PROPERTIES*

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

*Typical properties not to be construed as specifications

PRODUCT BENEFITS

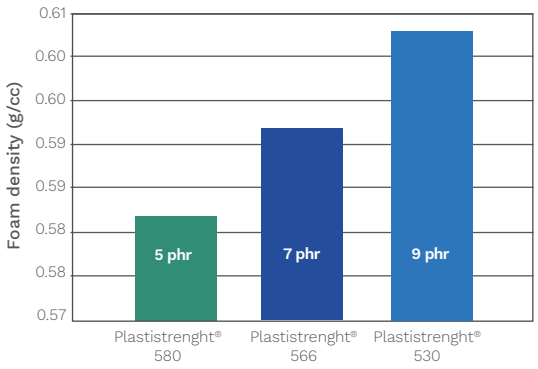
Melt strength and foam density

Due to its ultra-high molecular weight and chemistry, Plastistrength® 580 process aid significantly improves the melt strength and rheological characteristics of cellular PVC formulations, which results in lower foam density.

Usage level

Plastistrength® 580 process aid offers excellent value in formulations by increased efficiency and dosage reduction compared to traditional PVC process aids. Figure 1 shows lower foam densities are achievable with lower loading levels for Plastistrength® 580 compared to other commercial products from Plastistrength® line of process aids.

Rigid PVC sheet foam density versus loading level.

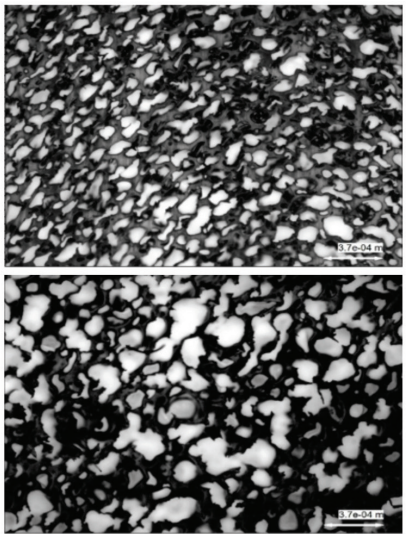


PRODUCT BENEFITS

Cell structure and surface finish

Use of Plastistrength® 580 process aid results in more uniform and finer cell structure after cell nucleation, compared to other commercially available process aids by capturing an optimum amount of gas evolved from the blowing agent component. Because of the additive's tailored chemistry, a smooth surface finish is maintained after extrusion, allowing for exceptional weatherability and paintability.

Micrographs of the cell structure in rigid PVC foamed sheet made with Plastistrength® 580 process aid (top), and a typical commercial process aid (bottom).



SUGGESTIONS FOR USE

Plastistrength® 580 process aid is recommended for all vinyl foam applications. The product's excellent melt strength level makes it an ideal process aid for thick cellular PVC trim board and free foam applications. With improved efficiency versus competitive technologies, Plastistrength® 580 process aid can be used at reduced loading levels in deck boards, thin cellular PVC sheet, foam core pipe, and foamed moldings and maintain the needed final properties. Arkema's Technical Service Team is available to discuss your application requirements, provide formulation guidance, and lab testing as needed.

PACKAGING

Plastistrength® 580 is packaged in 20 kg bags and bulk bags.

ARKEMA

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 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.

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