



Plastistrength® L1000

Acrylic Lubricant

PRODUCT DESCRIPTION

Plastistrength® L1000 is a highly-efficient acrylic lubricant that offers excellent benefits to PVC compounders and processors. Plastistrength® L1000 acrylic lubricant provides excellent metal release characteristics because of its unique lubricating properties. Due to its high efficiency at low use levels, Plastistrength® L1000 acrylic lubricant has little effect on clarity, heat stability, chemical resistance, and physical properties. These characteristics combine to make Plastistrength® L1000 acrylic lubricant ideal for calendering, blow molding and extrusion applications.

TYPICAL PHYSICAL PROPERTIES

Physical Form	White Powder
Specific Gravity	1.13
Bulk Density	0.45 g/cc
Particle Size	2% on 40 Mesh
Percent Volatiles	1.2% Max

PRODUCT BENEFITS

1. The unique chemical composition of Plastistrength® L1000 acrylic lubricant gives excellent lubricity and virtually eliminates sticking to hot metal surfaces at normal and elevated processing temperatures.
2. Plastistrength® L1000 acrylic lubricant is used at very low levels and is derived from a class of polymers that has no negative effect on end product weatherability.
3. Plastistrength® L1000 acrylic lubricant is used at very low levels which allows excellent control over clarity.

SUGGESTIONS FOR USE

Plastistrength® L1000 acrylic lubricant is recommended for applications where process lubricity and elimination of adhesion to hot metal surfaces is desired; it is ideal for use in calendering, blow molding and extrusion.

Customers should evaluate Plastistrength® L1000 acrylic lubricant 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

Plastistrength® L1000 acrylic lubricant is packaged in 18 kg bags and 1500 lb bulk bags.

STARTING FORMULATION RECOMMENDATIONS

Rigid Calendered Film and Sheet	General Purpose	Food Grade
PVC Resin (K-60)	100.0 phr	100.0 phr
Organotin Stabilizer	0.6 – 1.2	–
Octyl Organotin Stabilizer	–	1.2 – 1.5
Internal Lubricant	1.2 – 1.5	1.2 – 1.5
External Lubricant	0.1 – 0.5	0.1 – 0.5
Plastistrength® 550 Process Aid	1.5 – 2.0	1.5 – 2.0
Plastistrength® L1000 Acrylic Lubricant	0.2 – 0.5	0.2 – 0.5
Clearstrength® 320 or 303H Impact Modifier	6.0 – 12.0	6.0 – 12.0
Toner	As Required	As Required

Weatherable Profile		
PVC Resin (K-67)	100.0 phr	
Methyl Organotin Stabilizer	1.0 – 1.5	
Internal Lubricant	1.2 – 1.5	
External Lubricant	1.0 – 1.2	
Plastistrength® 550 Process Aid	1.0 – 1.2	
Plastistrength® L1000 Acrylic Lubricant	0.2 – 0.5	
Durastrength® 200 Impact Modifier	5.0 – 6.0	
Calcium Carbonate (0.7µm)	0.0 – 5.0	
Titanium Dioxide	9.0 – 10.0	

TYPICAL PERFORMANCE CHARACTERISTICS

Lubricity Test Results*	Sticking Time (minutes)			
	180°C	190°C	195°C	200°C
Control	6	–	–	–
Plastistrength® L1000 Acrylic Lubricant	30+	30+	30+	20.5
Montan Wax "A"	10.5	1	–	–
Montan Wax "B"	30+	20.5	–	–
Oxidized Polyethylene Wax	30+	10	–	–

*Tested in a control formulation.

Optical Properties		
	% Transmittance	% Haze
Control	76.0	10.5
Plastistrength® L1000 Acrylic Lubricant	74.5	11.1
Montan Wax "A"	76.3	11.6
Montan Wax "B"	70.2	12.3
Oxidized Polyethylene Wax	74.0	12.2

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 at +1(800) 331 7654 in the US, and at +33 (0)1 4900 8837 in Europe. 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.

Vikoflex® Epoxy Plasticizers

The Vikoflex® line of epoxy plasticizers is derived from renewable resources, like epoxidized linseed oil, soybean and tall oil fatty acid esters for 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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