

PLASTISTRENGTH®

TDS/TECHNICAL DATA SHEET

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. Plastistrength® L1000 acrylic lubricant is available in powder form, or as a latex emulsion.

TYPICAL PHYSICAL PROPERTIES

| Physical Form | White Powder | White Latex |
|-------------------|---------------|-------------|
| Specific Gravity | 1.13 | – |
| Bulk Density | 0.45 g/cc | – |
| Particle Size | 2% on 40 Mesh | – |
| Percent Volatiles | 1.2% Max | – |
| Percent Solids | – | 40% |
| pH | – | 6.0 min |

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 is used at very low levels which allows excellent control over clarity, with no adverse effect on end product weatherability.

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.

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– 1.2 | 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 |
| Control0– .2 | 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 |

PACKAGING

Powder: 18kg bags; 1,500 lb bulk bags

Latex: available in totes or bulk tank wagon

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.

FOR MORE INFORMATION CONTACT

Please contact your local account manager or our headquarters:

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