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**WAXES**  
**-POLYETHYLENE-**

**AKROWAX™ PE-LM**

**DESCRIPTION:**

Akrowax PE-LM is a low molecular weight polyethylene used as a process aid in natural and synthetic rubbers. Its outstanding compatibility and excellent flow and release characteristics make Akrowax PE-LM useful in almost every rubber compound. The "LM" version provides a lower drop or softening point than Akrochem's standard PE wax.

**TYPICAL PROPERTIES:**

|                        |                    |
|------------------------|--------------------|
| Melt Point .....       | 105°C              |
| Specific Gravity ..... | 0.92               |
| Appearance .....       | fine, white grains |

**APPLICATIONS:**

Akrowax PE-LM may be used to:

- improve flow for injection and transfer molding, provide release from hot metal surfaces (internal mixers, hot calendar rolls, extruder dies, and molds)
- improve filler dispersion when added early in mix
- at higher loadings (>5phr), provide a glossier finish to cured parts

Akrowax PE-LM is typically used at the 2-6 phr level in virtually all elastomers (1 phr is the usual recommendation for fluoroelastomers). It provides release with minimal interference with adhesion properties. Note: for any PE wax to be effective it must be above melt point. Thus, PE waxes provide no release from mills but outstanding release from internal mixers and molds.

Normally up to 5 phr may be added to a compound with little effect on vulcanized properties. High loadings (up to 20 phr) can be used in EPDMs to achieve high durometer non-black stocks that process well. Akrowax PE-LM should be melted when dispersed in a compound to prevent molding flaws (streaky blisters are evidence of lack of melt).

Akrowax PE-LM's lower softening point can provide release from equipment at lower processing temperatures. For example, the temperature at which a stock releases from a calendar or an internal mixer might be lowered 10°C (say from 120°C to 110°C), thus reducing stock heat history.

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