AKROCHEM CORPORATION
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PROAID® LCF
-Low Coefficient of Friction-

DESCRIPTION:

PROAID LCF is a medium-range melting synthetic wax, commonly called methyl 12-hydroxystearate, derived from hydrogenated castor oil. It is remarkably effective for creating a low coefficient of friction on the surface of rubber articles. Proaid LCF blooms from most rubbers (rate of bloom varies with each formulation) to provide a non-oily, non-greasy lubricating bloom on exposed rubber surfaces. It is particularly rapid blooming in natural rubber stocks; slowest out of EPDM (allow 48 hrs for bloom to form in EPDM). It should be noted that LCF is better lubricating for EPDM than any other evaluated surface lubricant. CAS # 141-23-1.

TYPICAL PROPERTIES:

Appearance	off-white flakes
Specific Gravity	0.88
Melt Point	122°F (50°C)
Acid Value	5
Color, Gardner	2

APPLICATIONS:

Proaid LCF's surface lubrication effect can be used to improve a rubber's resistance to sliding abrasion, prevent galling of parts to dry metal surfaces, ease installation of rubber parts by letting them "slip" into position, and reduce sticking together of cured parts.

Suggested Loadings: 0.25 - 2.00 phr for reduced surface tack on cured parts. 4 - 5 phr for low coefficient of friction surface and improved abrasion wear. Add up to 10 phr for a long-lasting bloom that is self-restoring. LCF is insoluble in water and has limited solubility in most solvents.

Unlike competitive erucamides and oleamides, Proaid LCF has a minimal effect on rubber rheological properties. Typical of most process aids, there is a slight loss in maximum torque. It should be taken into account that the resulting lubricating grayish-white bloom can take on a grainy, smooth or spotty appearance. Proaid LCF is made to bloom and can result in a very heavy in appearance. In some applications this appearance may not be cosmetically acceptable.

LCF is acceptable under FDA regulations CFR 21: 177.2260, 177.2800, 176.200, and 176.210. Regulation 177.2600, subsection (3), permits “substances that by regulation in parts 170 through 189 ... may be safely used in rubber articles, subject to the provisions of such regulation”.

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T-PA-LCF