



UCON Fluids and Lubricants

UCON Textile Lubricant LS

Product Description

UCON™ Textile Lubricant LS is a water soluble lubricant developed specifically for use in the misting attachments for projectile circuit lubrication in Sulzer PU, PS, and modified TW-11 Weaving Machines. It provides excellent lubrication as well as affording complete removability from fabric during most scouring processes.

Advantages

- Complete water washability significantly reduces incidents of oil staining and spotting of fabrics.
- Extreme-pressure and anti-wear properties afford excellent lubrication for the projectile circuit.
- Good compatibility with brake shoes, GS sight glasses, and all original equipment elastomers used in Sulzer weaving machines.

Scourability

UCON Textile Lubricant LS is water soluble and is, thus, easily removed from fabric by washing with water. In scourability tests carried out by the Institute of Textile Technology (ITT), UCON Textile Lubricant LS was completely removed from 100% woven cotton fabrics weighing 4.7 and 6.6 ounces per square yard and 50/50 cotton/polyester woven fabrics weighing 3.6, 5.4, and 10.1 ounces per square yard. This is compared to highly visible spots which were left on fabric contaminated with petroleum oil-based textile machine lubricants.

While removability problems are not anticipated, we strongly recommend performing a washability test on your particular fabric at your finishing house before converting to UCON Textile Lubricant LS.

Lubrication

UCON Textile Lubricant LS provides excellent oxidation and corrosion protection and meets or exceeds all American Gear Manufacturers Association (AGMA) specifications for extreme-pressure gear lubricants. Inspection of the projectile circuit of Sulzer Weaving Machines after lubrication with UCON Textile Lubricant LS has shown no indication of abnormal wear on any parts.

Compatibility

Elastomers – UCON Textile Lubricant LS is compatible with all original equipment elastomers on Sulzer Weaving Machines.

Polyurethane Brake Shoes – UCON Textile Lubricant LS has exhibited excellent compatibility with Sulzer brake shoes.

Plastics – UCON Textile Lubricant LS will have a tendency to soften or crack some plastic parts used on some weaving machines, especially modified TW-11s. It is highly recommended that plastic parts and sight tubes be changed to metal or glass prior to the use of UCON Textile Lubricant LS. Before using UCON Textile Lubricant LS in any plastic molded sump, please contact your Dow Chemical Company representative for specific compatibility data.

Typical Physical Properties†

ISO Viscosity Grade	100
Viscosity (cSt at 40°C)	100
(cSt at 100°F)	18
Viscosity Index	220
Pour Point, °C (°F)	-48.3 (-55)
Specific Gravity, 20/20°C	1.043
Flash Point	
Pensky-Martens Closed Cup, ASTM D 93, °C (°F)	196 (385)
Turbine Oil Rust Test, ASTM D 665	Pass
FZG Extreme-Pressure Test, Stages Passed	12

†Typical properties, not to be construed as specifications

Storage and Handling

UCON Textile Lubricant LS is relatively easy to store and handle. The room temperature viscosity will be in the range of 300-400 centistokes, and a centrifugal pump is considered suitable for transferring the product at temperatures above 10°C. If lower temperatures are encountered, a positive displacement pump is preferred.

Changeover Procedure for UCON Textile Lubricant LS

UCON Textile Lubricant LS is incompatible with many petroleum oil lubricants and it is therefore imperative that all petroleum oil be drained from the sump prior to the use of UCON Textile Lubricant LS. It is also highly recommended that the following flushing procedure be used:

1. Drain old petroleum oil from sump and clean oil feed lines of petroleum oil by blowing through with air. If solvents such as mineral spirits are used, they should be removed in the same manner.
2. Physically clean residual oil from inside sump and clean oil feed lines of petroleum oil by blowing through with air. If solvents such as mineral spirits are used, they should be removed in the same manner.
3. Fill mist pump with UCON Textile Lubricant LS. Operate machine normally until level is near empty. Refill sump with UCON Textile Lubricant LS and operate normally. No further flushing will be required.

Due to potential differences in viscosity and flow properties between UCON Lubricants and petroleum oils, it may be necessary to adjust the flow rates of the misting attachments. Thus, the lubricant flow rates should be observed during the conversion process and the necessary adjustments made.

Recommended Textile Lubricant Spotting Test

The following procedure was developed with the help of the Institute of Textile Technology (ITT) to best simulate the spots produced by Sulzer TW-11, PU, and PS Weaving Machines.

The cloth to be tested is spotted with 2, 5, and 8 drops of lubricant. The drops are applied with a pipette or medicine dropper. The spots are then outlined with several dots of an indelible ink. Two sets of three spots are recommended for each lubricant tested. When testing UCON Textile Lubricant LS, we recommended that the lubricant currently being used be tested as control. The spotted piece of cloth should then be passed through the finishing process in question. After finishing, the cloth should be examined for residual spots.

Product Stewardship

Dow encourages its customers and potential users to review their applications from the standpoint of human health and environmental aspects. To help ensure that Dow products are not used in ways for which they are not intended or tested, Dow personnel will assist customers in dealing with environmental and product safety considerations. Dow literature, including Material Safety Data Sheets, should be consulted prior to the use.

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