

**UNILUBE WWA** is an aqueous solution of synthetic water-soluble lubricants formulated for application as a yarn dressing at beaming off after warping or at re-beaming. It is ideally suited for application to all types of warp yarns whether natural, synthetic or blended, regardless of the system on which they have been spun.

## APPLICATION

UNILUBE WWA may be applied by trough and lick roller at the warp mill or beaming frame and is usually suited for application by conventional bottle feed or the more modern circulating pump systems, e.g. Benninger Supertronic.

The following generalized application rates are recommended:-

Woollen Yarn	2.0 – 6.0%
Worsted Yarn	2.0 – 4.0%
Synthetic / Wool Blend	1.6 – 4.0%
Synthetic / Cotton Blend	0.8 – 3.6%
Synthetic Staple	0.8 – 3.6%
Synthetic Filament	0.6 – 1.6%
Linen & Linen Blends	3.9 – 4.0%

However, the user should adjust these figures to suit individual requirements.

## TYPICAL PROPERTIES

Appearance	-	Water-white viscous liquid
% Activity	-	25 +/- 1%
pH	-	6.0 – 8.0
Ionic Character	-	Nonionic
Viscosity (B4 Ford Cup)	-	< 20 secs @ 20°C
Anti-static Properties	-	Excellent
Solubility	-	Soluble in water and dry cleaning solvents at 5°C – 100°C
Storage	-	Remains liquid at normal temperatures

## MODE OF ACTION

UNILUBE WWA acts as a mild size and smoothing agent for warp yarns. A substantial reduction in yarn to yarn friction and yarn to metal friction is achieved by the laying of the surface fibres of warp threads parallel to the axis of the yarn which in turn aids reduction in, or elimination of, common weaving faults such as stitching or pilling with plain weaves and closely set warps.

UNILUBE WWA serves as an extremely effective antistatic lubricant in reducing fibre/metal friction, and is very effective in reducing fly and fibre shedding which commonly builds up on the loom leading to weaving faults particularly during high speed weaving.

UNILUBE WWA applied to continuous filament yarns aids weaving performance by coating the yarn finish and binding the individual filaments together preventing opening out of the yarn and fibre breakage.

Whilst UNILUBE WWA can be readily removed after weaving during a conventional scouring operation, where dyeing and finishing on the fabric is necessary, no special steps need be taken to remove the finish since UNILUBE WWA exhibits advantageous dye leveling and dispersing properties during subsequent dyeing of the fabric.

UNILUBE WWA is totally soluble in chlorinated hydrocarbons and as such is readily removed in a typical solvent scour.

## HEALTH & SAFETY

This product has been manufactured to the highest standards and when used for the purpose recommended is unlikely to present any significant health hazards. A Material Safety Data Sheet is available.

Indicated data are approximate values and are subject to the usual commercial fluctuations. All information correct at time of going to press to the best of our knowledge. This information may be subject to change without notification due to continual product research and development.