KAPPAFIL KW 90
Yarn wax

CHEMICAL-PHYSICAL DATA
Chemical composition: aqueous preparation of polyglycolene and additives
Appearance: colourless liquid
pH-value 20 °C (product): approx. 8.2
Density 20° C (g/ml): approx. 1.0
Ionic charge: nonionic

FUNCTION
KAPPAFIL KW 90 considerably reduces the frictional resistance of warp yarns in weaving.
KAPPAFIL KW 90
- increases the stability of baggy, loose and hairy yarns by closing the surface.
- avoids the fibril breaks of synthetic endless yarns.
- can replace desizing of various yarns.
- is antistatic and dust binding.
- requires no particular drying process.
- does not cause smearing of heald.
- can be applied as additive to desizing bath.
- does not cause colour changes.
- can be applied for after-smoothing of desized warp yarns.
- can easily be washed out in cold or warm water.

APPLICATION
KAPPAFIL KW 90 is suitable for all type of fibres. The product is applied by use of a waxing device at rewinding, warping, dewinding and assembling of warps or on the sizing machine.

Recommended application levels:

<table>
<thead>
<tr>
<th>Fibre Type</th>
<th>Application Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>pure wool (woollen yarn)</td>
<td>1 – 3 %</td>
</tr>
<tr>
<td>synthetic/wool</td>
<td>1 – 3 %</td>
</tr>
<tr>
<td>synthetic (staple fibre)</td>
<td>1 – 2 %</td>
</tr>
<tr>
<td>regenerated cellulose fibre</td>
<td>1 – 3 %</td>
</tr>
<tr>
<td>jute yarn</td>
<td>3 – 4 %</td>
</tr>
<tr>
<td>pure wool (worsted yarn)</td>
<td>1 – 2 %</td>
</tr>
<tr>
<td>synthetic/cotton thread</td>
<td>1 – 3 %</td>
</tr>
<tr>
<td>synthetic (endless yarn)</td>
<td>0.5 – 1.5 %</td>
</tr>
<tr>
<td>linen and linen blends</td>
<td>5 – 10 %</td>
</tr>
</tbody>
</table>

Rewinding
Warpes, brought together on the sizing machine, are run through the cold machine without desizing. Thereby the warp wax device is in front of the crossing rods. The warp should contact the anilox roller of the warp wax device at a length of at least 1 - 2 cm. The quantity has to be regulated in such a way, that there is no product debris at the rack and the deflecting roller. It is important to adjust the rotating direction of the anilox roller of the warp wax device in such a way, that it rotates in the same direction as the warp sliding above.

Warping
The warp wax device is fitted between warping creel and warping cylinder, the individual bands are running over the anilox roller. The quantity depends on the roller and band speed.

DILUTION INSTRUCTION
KAPPAFIL KW 90 is applied in the supplied concentration only.

STORAGE
KAPPAFIL KW 90 remains stable for at least 1 year if stored properly and dry in a tightly closed container. Do not expose to frost and protect against impact of heat!