



PROTELAN LGS plus

The optimised yellowing inhibitor for
an excellent quality of PA/EL tapes



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**ZSCHIMMER & SCHWARZ
MOHSDORF GmbH & Co KG**

Textile Auxiliaries Division

Chemnitztalstraße 1 • 09217 Burgstädt / GERMANY • Fon: +49 (0) 37 24/67-0 • Fax: +49 (0) 37 24/67-209
textil@zschimmer-schwarz.com • www.zsm.de



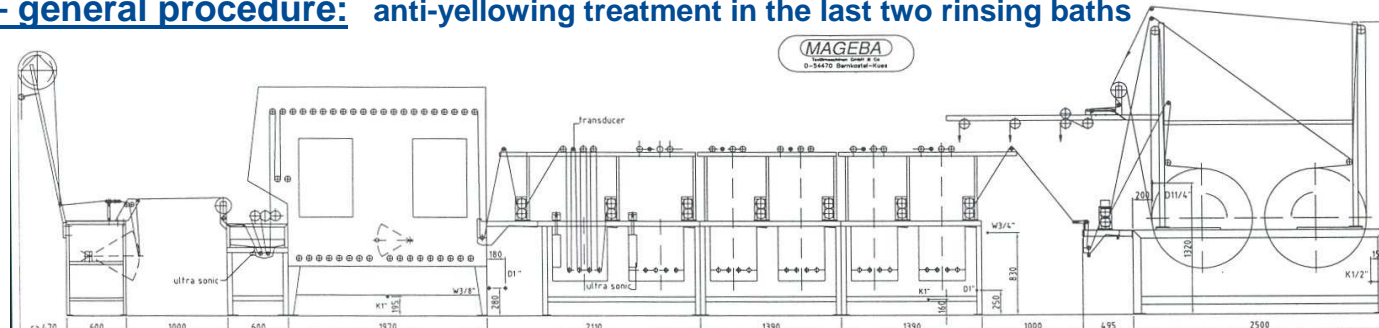
PROTELAN LGS plus

- ✓ Outstanding protection of polyamide and polyamide/elastane fabrics against storage yellowing
- ✓ Reduces the appearance of yellow-brownish spots or discolorations after the anti-yellowing treatment of PA tapes
- ✓ Low application temperature (40°C) during the exhaust process possible
- ✓ Final pH value of pH 5.5 to 7 on fabric
(fulfills Oeko-Tex Standard 100 and also standards for special retailers such as Victoria Secret, Embray, Wendy Fair)
- ✓ No buffering effect during pH adjustment
- ✓ No offensive odour in hot treatment baths



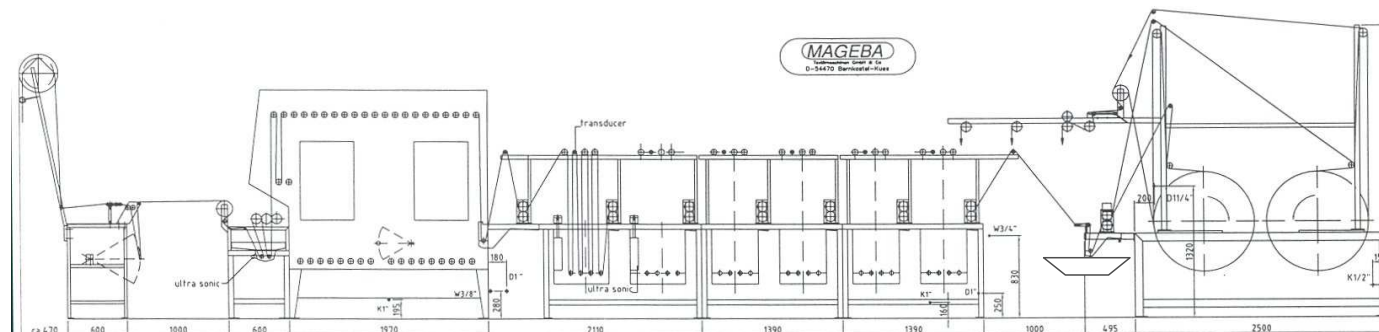
PROTELAN LGS plus is specially recommended for the continuous tape dyeing process.

1. Tape dyeing – general procedure: anti-yellowing treatment in the last two rinsing baths



20 – 80 g/l PROTELAN LGS plus
40 – 70°C
without pH adjustment or bath pH 3, citric acid

2. Tape dyeing – cost saving procedure: anti-yellowing treatment during steaming and by padding before drying (advantage: less bath volume)



x g/l optical brightener (check pH stability)
x g/l detergent (TISSOCYL RC 9 or JT)
20 – 60 g/l PROTELAN LGS plus
without pH adjustment or pH 3, citric acid,
steaming 3-4 min

20 – 60 g/l PROTELAN LGS plus
padding 30 – 40°C
without pH adjustment or pH 3, citric acid

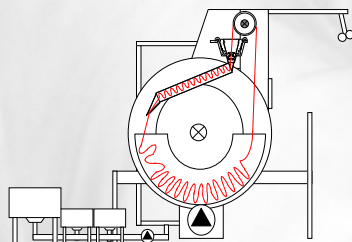
PROTELAN LGS plus can be applied by padding or exhaust process.
A combination of anti-yellowing treatment and optical brightening or dyeing is possible.

Padding process:



- **Anti-yellowing treatment before drying**
wet – in – wet
20 – 80 g/l PROTELAN LGS plus
without pH adjustment, optionally pH 3, citric acid

Exhaust process:



- **One bath application – for optical brightening and anti-yellowing protection**
x % optical brightener
2 – 4 % PROTELAN LGS plus
0.2 g/l CONTRIPON S (defoamer)
pH 4-5, optionally pH 3, citric acid
30 min 98°C
- **Two bath application – for optical brightening / dyeing and anti-yellowing protection**
x % optical brightener or light colour shades
pH 5-7, 20-30 min, 70-98°C

fresh bath
2 – 4 % PROTELAN LGS plus
0.2 g/l CONTRIPON S (defoamer)
without pH adjustment, optionally pH 3, citric acid
20 min 40 – 80°C

Special problems in tape dyeing process

Most of the tape manufacturers know that nearly all of the common storage yellowing inhibitors can cause yellow-brownish spots or discolorations on the goods sporadically.

It is not possible for the quality control staff in the plant to detect these spots in time since they are often formed some days or weeks after the application of the anti-yellowing agent. This is a problem because fabrics which are classified as best quality textiles can lead to trouble and complaints after some time.

Discolorations and spots are some of the main quality defects in tape manufacturing.



Many little spots on one side or on the edge of the tape.

Tapes are discolored on one-side.





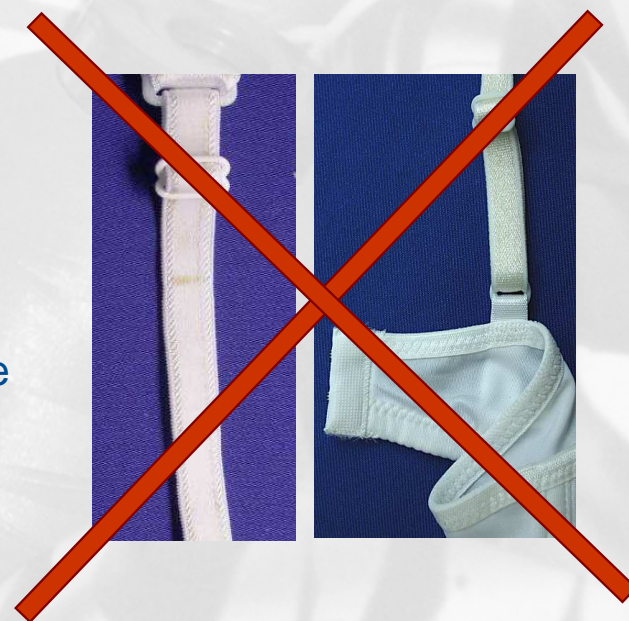
PROTELAN LGS plus

Yields special advantages for the continuous tape finishing process.

The product protects the polyamide fibers against yellowing during storage very effectively.

Special additives of the product reduce the danger of discolorations and brownish spots after tape finishing.

PROTELAN LGS plus is also suitable for the storage yellowing protection of polyamide and polyamide/elastane knitwear or woven fabrics by padding or exhaust process.



PROTELAN LGS plus

- ✓ for best qualities of polyamide/elastane fabrics
- ✓ for brilliant and spotless PA tapes
- ✓ for a safe production process
- ✓ for long lasting effects

