

E SERIES

PRODUCT DESCRIPTION

Esterlam (UK) is a world leader in synthetic doctor blade technology.

Our E Series polyester doctor blades continue to set new and improved performance standards in today's flexo and gravure industries. Our unique high quality blades utilise the latest developments in polymer technology extending consistency with significant reduction in roller wear and scoring.

Our polyester is a bi-axially oriented material. The process of stretching the material in the two directions aligns the molecules in the polymer creating a much stronger structure with far higher chemical and temperature characteristics allowing the blade to remain even more stable all the way through the temp curve offering a much higher working/service temperature. The same characteristics also apply with chemical resistance and to hot water which sometimes causes softening and buckling with various extruded polymers. Bi-axially oriented Polyester extends the best overall results in stability and longevity.

Another important benefit of the E Series is 'spring' memory. Polyester is highly crystallized. During the manufacturing process the material is taken to very high temperatures, stretched with enormous energy, and then rapidly cooled. This together with the unique laminate structure gives the E- Series excellent 'spring memory', (Steel blades are all made from 'spring' steel) This spring memory provides more consistent pressure on the anilox roll over a longer period of time and subsequently more consistent ink values.

APPLICATIONS

Esterlam offers 5 main types of blades:

- **E10, E600 and E700** – blades made of polyester, used for high-quality prints. Their elasticity characteristics are similar to steel, but they are not as dangerous and easily abrasive. They are used as scraping blades in narrow and wide web
- **E3 and E5** – closing blades, used to maintain a reliable and durable seal in each chamber. They work well in both wide and narrow web
- They also offer **E2** doctor blades, they are used in certain types of closed chambers, but these are rarely used applications.

BENEFITS

Thanks to synthetic blades, many problems that arise during ink application and improper use of materials can be eliminated. Key benefits:

- Cost reduction due to the longer lifespan of the blade.
- Increased efficiency thanks to less frequent blade changes and extended production time.

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BENEFITS

- Elimination of the increase in anilox damage caused by steel, composite and partially ceramic-coated blades.
- Reduced risk of circular scratches, thereby extending the lifespan of anilox rollers and delaying the need for costly refurbishments.
- Reduced dot gain compared to using steel blades, as confirmed by an independent FQC project conducted by the FTA in the USA.
- Significant reduction in ink spitting issues, even with UV inks and coatings.
- Key extension of blade life with more aggressive water-based inks and coatings.
- Improved safety for printing machine operators.

CHARACTERISTIC

E SERIES		DESCRIPTION	STEEL BLADES
NAME	THICKNESS		
E10	1 mm	They offer the same flexibility as steel blades and excellent scraping properties. The blade has outstanding rigidity and operational efficiency.	Replacement for steel blades with a thickness of 0,35mm.
E600	0,6 mm	They offer the same flexibility as steel blades and excellent scraping properties. With a thickness of 0.6 mm, the squeegee has outstanding rigidity and operational efficiency.	Replacement for steel blades with a thickness of 0,15mm.
E700	0,75 mm	Their flexibility and rigidity characteristics also match those of steel blades, providing excellent scraping properties	Replacement for steel blades with a thickness of 0,15mm and 0,20mm.
E5	0,5 mm	Closing blades used to maintain a reliable and durable seal in every chamber.	
E3	0,35 mm	Blades with a thickness of 0.35 mm are used in applications where back doctoring is the main issue	