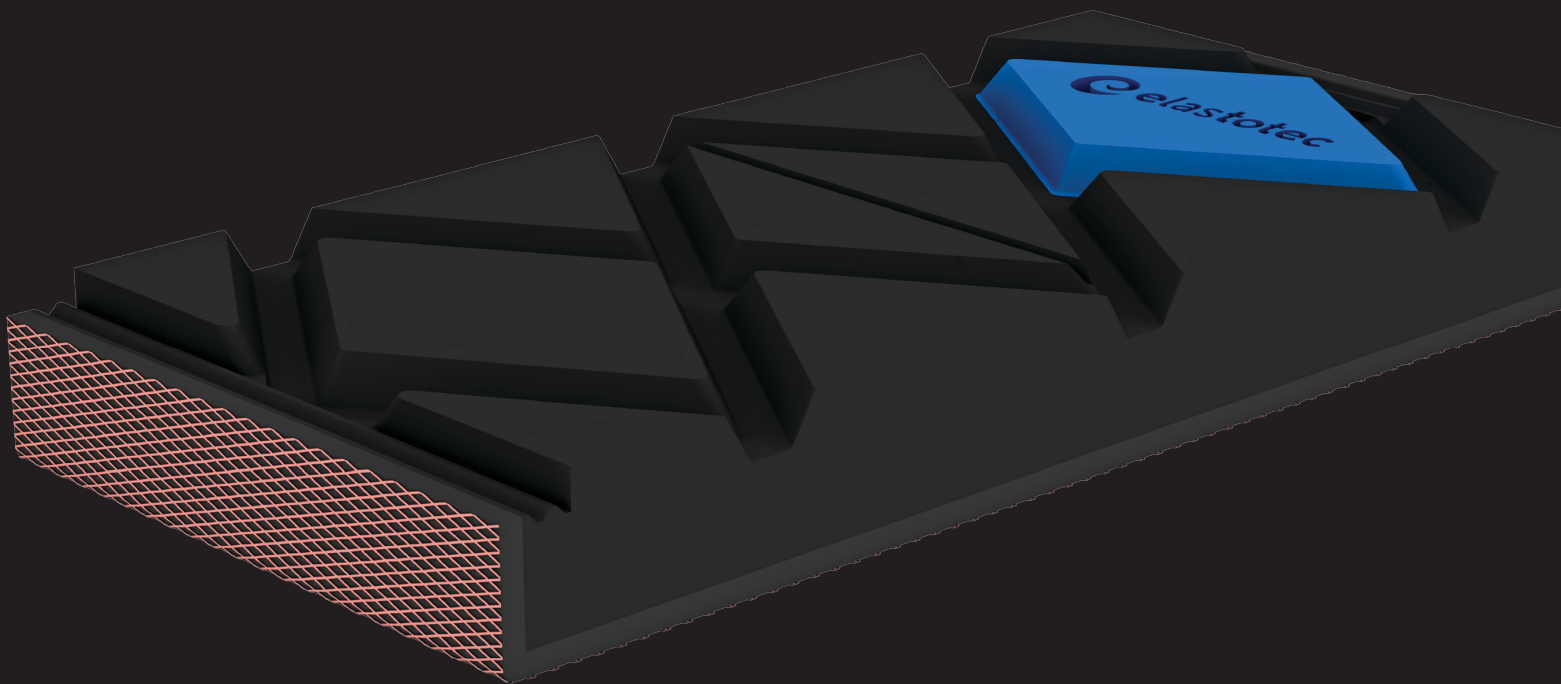




Extreme Rubber Lagging



Engineered to Perform

Elastotec Extreme Rubber Lagging has been developed to provide mining companies with a long life lagging that will perform reliably on both Drive and Non Drive pulleys, including those in contact with the dirty side of the conveyor belt such as High Tension Bend (HTB) pulleys. Elastotec Extreme Rubber Lagging is more than 2 times more abrasion resistant than standard rubber.

Elastotec Extreme Rubber Lagging is ideal for:

- Drive and Non Drive pulleys with a requirement to extend service life and ceramic lagging is not an option.
- Non drive pulleys in contact with dirty side of the belt.
- Non drive pulleys in contact with an uneven belt top cover surface due to wear.
- High Tension Head pulleys.
- High Tension Snub pulleys.
- High Tension Bend pulleys.

Extreme Rubber Lagging is currently only offered in NAT specification and is not available in FRAS.

Application

Elastotec extreme rubber lagging is designed for the following conditions:

- Highly abrasive conditions.
- Uneven belt top cover profile due to wear.
- Presence of carry back that can cause build up and resultant belt damage.
- High power, high tension conveyor belts.
- Extreme temperatures from -40°C to +60°C.
- To protect the belt from high localised shear forces that result from belt top cover wear.

Elastotec extreme rubber lagging is designed for use in the following demanding applications:

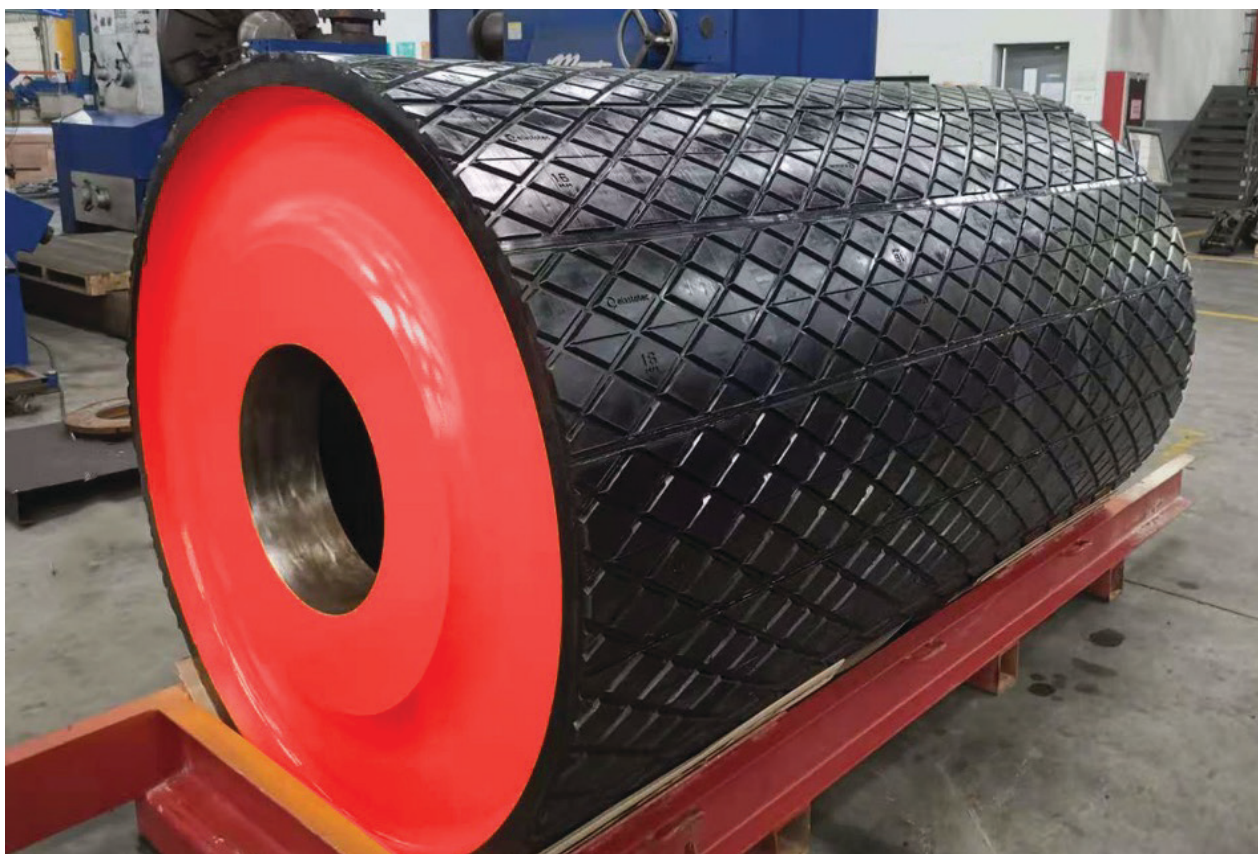
- Drive and Non Drive pulleys with a requirement to extend service life.
- High power drive pulleys.
- Large non drive pulleys on high power belt conveyors that are in contact with the dirty side of the belt.
- Pulleys where high levels of carry back are present.
- Pulleys in locations that are difficult to access and where pulley change out is difficult.
- Critical locations where unplanned conveyor downtime due to lagging failure must be eliminated.
- Conveyors that operate across a wide temperature range.

LAGGING REQUIREMENTS FOR HIGH POWER DRIVE PULLEYS

- ☒ Soft (60 Shore A), flexible to move with the belt as it retracts around the arc of contact and minimise the risk of localised slippage and the resulting wear of the bottom belt cover.
- ☒ It is common for high power conveyors to be specified not to have ceramic lagging. The high tensions combined with Ceramic lagging have the risk of high localised stresses on each ceramic tile section. Elastotec Extreme Rubber Lagging is a suitable alternative for these applications.
- ☒ Abrasion resistant to resist wear and provide long service life.
- ☒ Strong bond to steel to prevent debonding from the pulley shell under high cyclic shear loads.

LAGGING REQUIREMENTS FOR HIGH TENSION BEND PULLEYS

- ☒ Soft (60 Shore A), flexible and abrasion resistant to absorb high localised shear forces.
- ☒ Abrasion resistant - to resist wear and provide long service life.
- ☒ Strong bond to steel - to prevent debonding from the pulley shell.
- ☒ Flexible - to allow the lagging to deform and compensate for high localised shear forces and be resistant to build up of carryback.



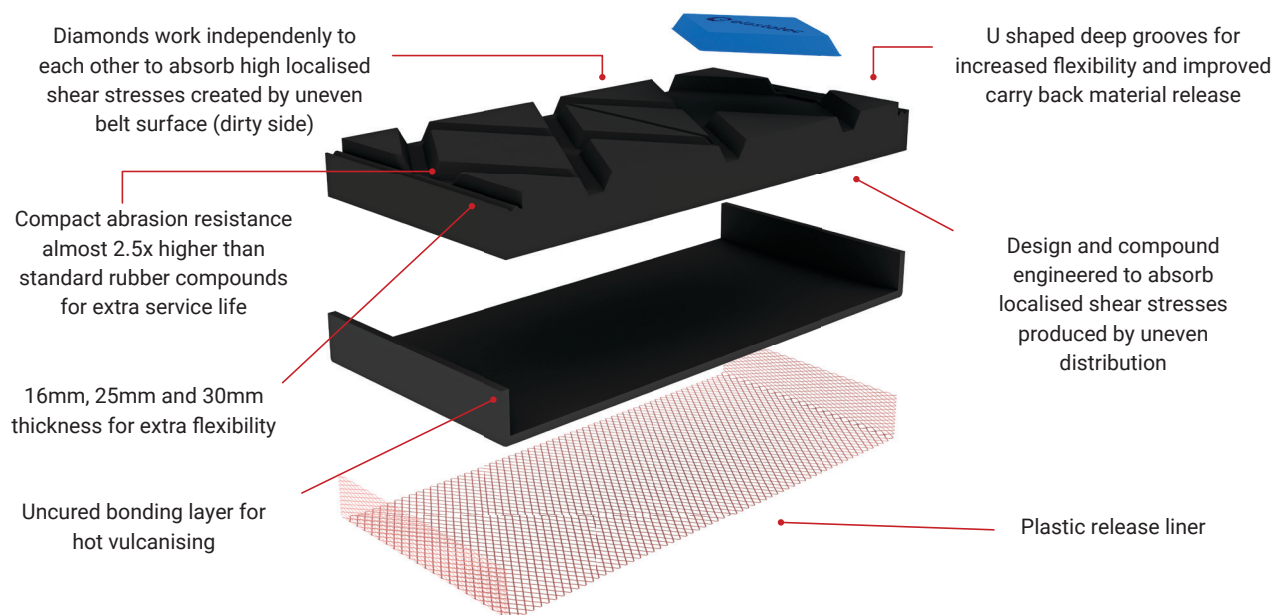
Key Features and Benefits

- Soft (60A Duro), flexible abrasion resistant rubber to absorb high localised shear forces and protect the belt.
- Advanced bonding system provides 100% rubber tear adhesion to handle localised shear forces, extremes of temperature and wet operating conditions. This bonding system eliminates the chance of the lagging debonding from the pulley shell and the chance of separation of the lagging at the joins between strips.
- High performance abrasion resistant synthetic elastomer with typical abrasion of 29 mm³ volume loss (DIN53516 Method A Non rotating).
- Diamond pattern with large diamonds and deep grooves to provide flexibility to handle localised shear stresses and protect the conveyor belt.
- Reusable filled silicone infill strip used during lagging application curing process to ensure even pressure on surface.
- Supplied for hot vulcanising application only to ensure 100% rubber tear bond.



Design

Elastotec Extreme Rubber Lagging utilises advanced elastomer technology that has been developed to provide a level of operational performance far in excess to any lagging that is currently available. It can be supplied with the diamond moulded grooving or fully plain moulded rubber strips that can be hand grooved to create the required pattern.

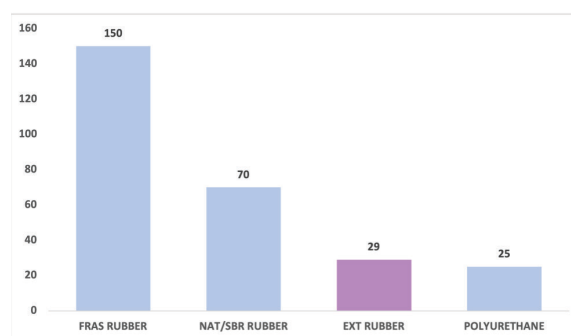


RUBBER SPECIFICATIONS

Typical values

Base polymer	Proprietary blend
Hardness range ASTM D2240	60
Tensile strength ASTM D412	17 Mpa
Elongation at break ASTM D412	550%
Abrasion loss (volume loss) DIN 53516 – non-rotating – method A	29mm ³
FRAS	Not Available

ABRASION RESISTANCE



Abrasion resistance max volume loss
ISO 4649 method A (non-rotating)

ELASTOTEC EXTREME RUBBER IS APPLIED TO PULLEYS BY HOT VULCANISATION.

ELASTOTEC HOT VULCANISING LAGGING

Elastotec Extreme Rubber Lagging Hot Vulcanising has a 1.2mm thick uncured rubber layer applied to the back and sides of the lagging.

Hot Vulcanising Lagging is supplied packed in plastic to protect and keep the uncured bonding layer fresh and free from contamination until application to the pulley.

Application by a trained Elastotec approved applicator using the Elastotec application procedures will guarantee a 100% rubber tear bond between the lagging and the pulley shell with typical adhesion values exceeding 20 N/mm.



LAGGING SPECIFICATIONS – EXTREME RUBBER LAGGING

Lagging manufactured using an extremely abrasion resistant top rubber layer 60 Duro hardness.

DIMENSIONS DIAMOND DESIGN

Design with large diamonds and deep U shaped grooves for extra flexibility to absorb concentrated shear stresses.

PRODUCT	CODE	WIDTH	THICKNESS	MAX ROLL LENGTH	WEIGHT/lm
Extreme Rubber Lagging 16mm	ELA-RL-XT-H-16V	249mm-251mm	15.7mm-17.1mm	9.7m	6.40kg/m
Extreme Rubber Lagging 20mm	ELA-RL-XT-H-20V	249mm-251mm	21.2mm-22.6mm	Custom	6.80kg/lm
Extreme Rubber Lagging 25mm	ELA-RL-XT-H-25V	249mm-251mm	24.7mm-26.1mm	Custom	7.00kg/m



DIMENSIONS PLAIN DESIGN

PRODUCT	CODE	WIDTH	THICKNESS	MAX ROLL LENGTH	WEIGHT/lm
Extreme Rubber Lagging 16mm	NL-RL-PLN-H-16V	249mm-251mm	16.2mm-17.6mm	Custom	6.60kg/m
Extreme Rubber Lagging 20mm	NL-RL-PLN-H-20V	249mm-251mm	21.2mm-22.6mm	Custom	7.10kg/lm
Extreme Rubber Lagging 25mm	NL-RL-PLN-H-25V	249mm-251mm	25.2mm-26.6mm	Custom	7.20kg/m

Product code for different lengths: Add 5 digit number indicating length in mm.

Example: 25 mm 2200mm strip product code: ELA-RL-EXT-H-25V-02200

Always allow 100 mm extra length over the pulley face width to have 50 mm at each end of overhang.

16mm thick lagging only recommended for pulleys with diameters over 900mm.

20mm thick lagging only recommended for pulleys with diameters over 1200mm.

25mm thick lagging only recommended for pulleys with diameters over 1800mm.

Storage Recommendations

- Stock usage based on a first-in first-out method (FIFO).
- The storage room for lagging must be cool, dry and dust-free.
- Avoid storage places near sources of ozone generating equipment.
- Do not store outside.
- Avoid storage in direct sunlight and strong artificial light as UV light can damage the products and may lead to a premature ageing.
- Under no circumstances should fuels, lubricants, acids, disinfectants, solvents or other chemicals be stored in the same storage area.
- Keep the storage place clean. Protect the material from dust, water etc. with suitable coverings.
- Allow 24 hours before use when lagging is removed from cold storage.

Shelf Life

DIRECT BOND LAGGING AND WEAR PANELS

- Stored <25°C 5 years shelf life
- Inspect and evaluate condition of backing tape after 5 years

COLD BOND LAGGING AND WEAR PANELS

- Stored <25°C 3 years shelf life
- Light buffing of bonding surfaces is recommended if over 4 months from production date

HOT VULCANISED LAGGING AND WEAR PANELS

- Stored <7°C 12 months shelf life
- Store away from UV and ozone generating equipment
- Products stored for longer than 12 months require adhesion testing before use

ADHESIVES AND PRIMERS

- Store in flammable goods cabinet
- Shelf life Stored <25°C
 - Primers: 2 years
 - Cold Bonding adhesive: 2 years
 - Direct Bond adhesive: 2 years
- Shelf life Stored <7°C
 - Hot vulcanising adhesive: 12 months

IMPORTANT: For HV Rubber Cement stored at <7°C ensure this is brought to room temperature over a minimum of 24 hours before the drums are opened. This is to prevent condensation of water and contamination of the rubber cement.



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