

DIAMOND 15% CERAMIC LAGGING

 **elastotec**
ENGINEERED TO PERFORM



DIAMOND 15% CERAMIC LAGGING



DESCRIPTION

Elastotec Diamond 15% Ceramic Lagging is designed to provide additional grip in low to medium tension applications where existing rubber lagging is experiencing problems due to slippage.

A single aluminium oxide tile is bonded into each large diamond and the raised dimples engage with the belt cover under tension and provide increased grip.



APPLICATION

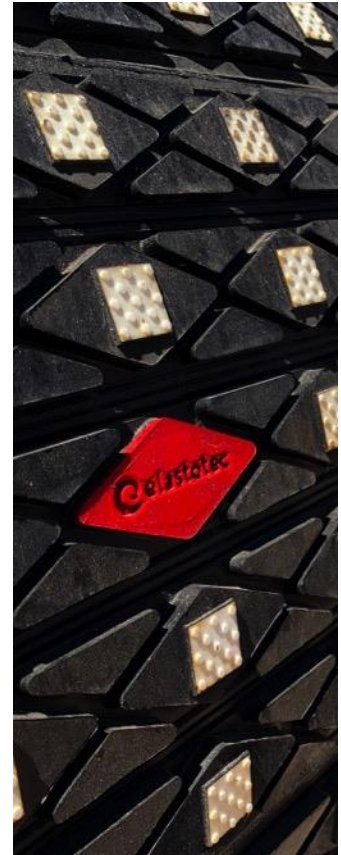
Elastotec Diamond 15% Ceramic Lagging is designed for use in medium belt tension applications and can be applied to conveyor drive, tail, snub, bend or take-up pulleys. It is used for conveyor system applications in the mining, quarrying, mineral and metal processing industries but can be used on any conveyor pulley.

DIAMOND 15% CERAMIC LAGGING



KEY FEATURES AND BENEFITS

- ✓ Increased grip and traction for applications where Rubber Lagging is experiencing slippage.
- ✓ Suitable for low and medium belt tension applications.
- ✓ Available in 250mm wide rolls that can be cut to suit any pulley size and make it easy to install.
- ✓ Available in highly abrasion resistant SBR for above ground applications and FRAS for underground and high-risk applications.
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- ✓ High quality rubber formulations designed for good bonding, resistance to degradation by outdoor exposure, and good abrasion resistance.
- ✓ Buffed CN Bonding layer for increased adhesion.
- ✓ Can be supplied in a range of thicknesses (12,15 and 20mm).
- ✓ Suitable for long term service at temperatures from - 40°C to +70°C.
- ✓ No tile debonding from the rubber backing.

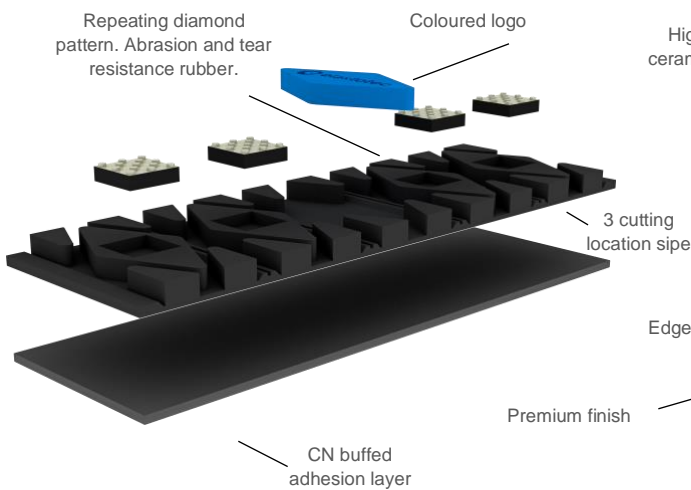


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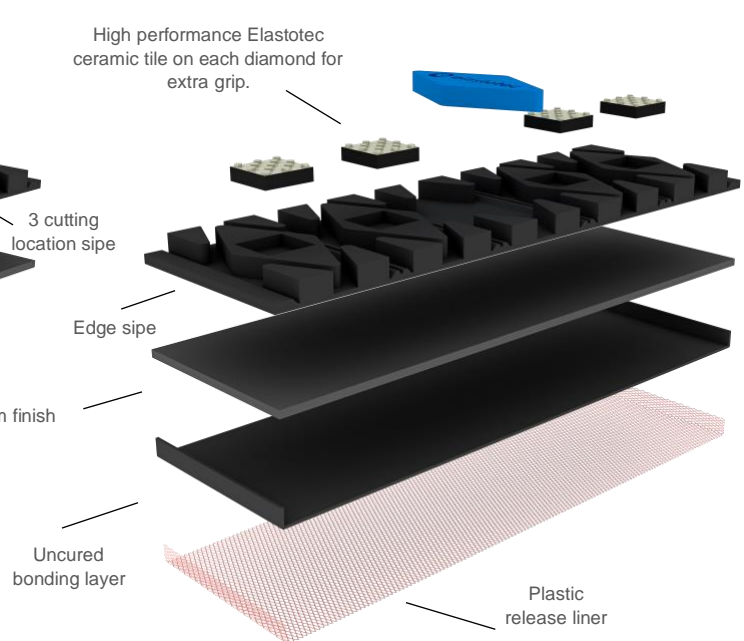


Elastotec Diamond Ceramic Lagging is 250mm wide and supplied in long rolls.

COLD BONDED



HOT VULCANISED



DIAMOND 15% CERAMIC LAGGING

RUBBER SPECIFICATIONS

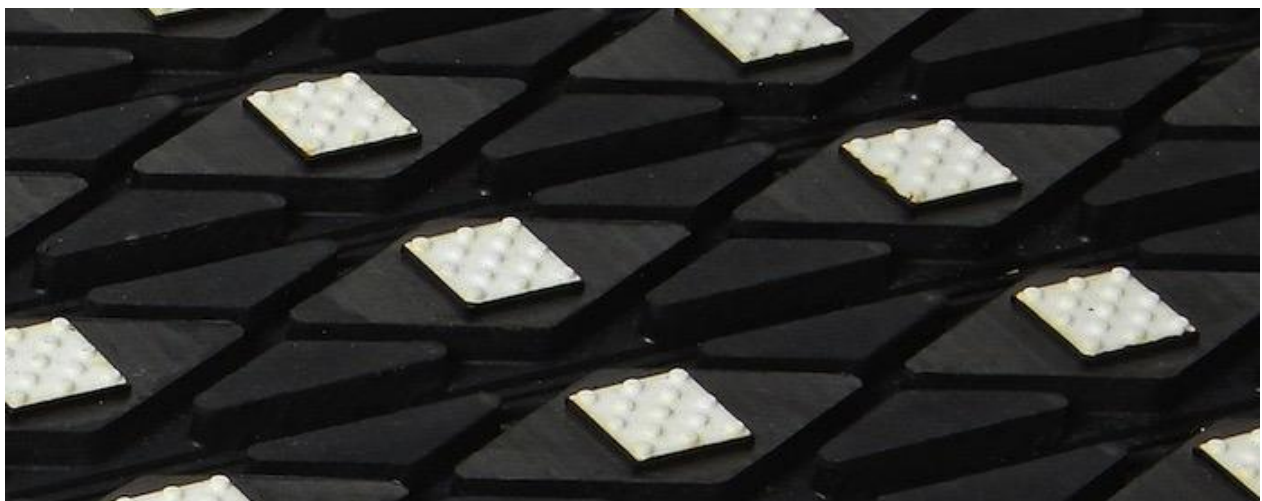
Typical values

	NAT	FRAS
Polymer	SBR	Blend
Tensile strength (MPa) min ISO37	18.0	16.0
% Elongation min ISO37	550%	500%
Hardness (shore A) ISO868	65+/-5	65+/-5
Abrasion resistance max vol. loss ISO 4649 method A (non-rotating)	70mm ³	150mm ³
FRAS - MDG3608 and MSHA Standards	N/A	PASS/ACCEPTED
Heat ageing (Property change after 70°C 168hs)	Tensile strength +1% Elongation -15% Hardness 5 points	Tensile strength +5% Elongation -1% Hardness 3 points
Continuous operating temperature	-40/+70°C	-40/+70°C

CERAMIC SPECIFICATIONS

Typical values

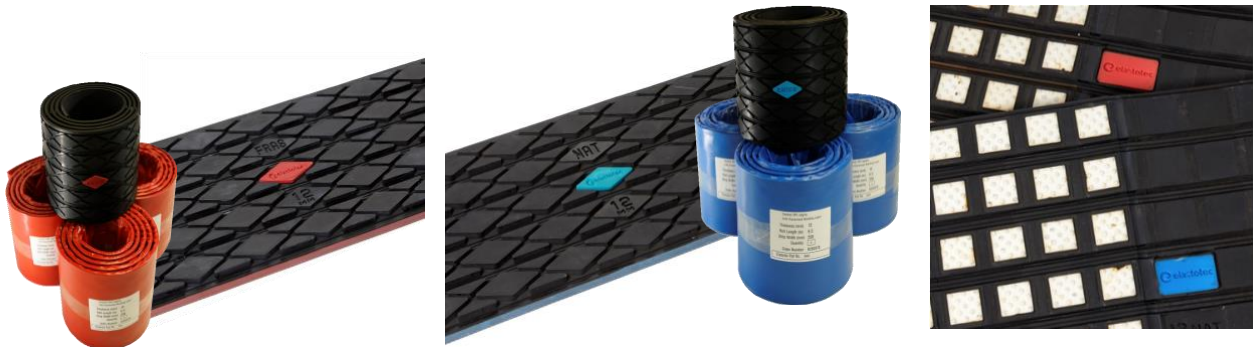
Aluminium oxide	96%
Specific gravity g/cm ³	3.7
Vickers hardness HV (10)	1000 plus
Flexural strength (Mpa)	300
Compressive strength (Mpa)	1800
Fracture Toughness (Mpa m ^{1/2})	3.5
Aluminium oxide	96%
Specific gravity g/cm ³	3.7



DIAMOND 15% CERAMIC LAGGING

NAT AND FRAS

Elastotec Rubber and Ceramic Laggings are available in both SBR (NAT) and FRAS approved compounds. FRAS lagging is MDG3608 certified and MSHA accepted, made of a fire resistant and antistatic compound that is primarily used in applications where there is a risk of fire and/or explosion as a safety precaution. These applications include underground coal mines, power stations, grain handling facilities and sugar terminals. Elastotec uses blue coloured inserts to identify SBR (NAT) rubber products and red coloured inserts to identify FRAS rubber products.



Elastotec lagging can be applied to pulleys by cold bonding or by hot vulcanisation.

ELASTOTEC COLD BONDING RUBBER LAGGING

Elastotec Cold Bonding Rubber Lagging has the CN buffed bonding layer packed in plastic to protect and keep it fresh and free from contamination until application to the pulley.

A rubber tear bond is achieved by using Elastotec Metal Primer 2205 and Elastotec Cold Bonding Adhesive to chemically interlock with the CN bonding layer, making a strong interface between the layers.

An Elastotec approved applicator using the Elastotec application procedure will achieve reliable adhesion levels that exceed the 9 N/mm industry standard and are typically at 12 N/mm.



ELASTOTEC HOT VULCANISING RUBBER LAGGING

Elastotec Hot Vulcanising Rubber Lagging 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.



DIAMOND 15% CERAMIC LAGGING

LAGGING SPECIFICATIONS – DIAMOND 15% CERAMIC LAGGING

COLD BONDED – NAT

DIMENSIONS

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/Im
Diamond Ceramic Lagging 12mm	ELA-DIA15-N-12K	250mm-252mm	12mm-13mm	60.0m	4.35kg
Diamond Ceramic Lagging 15mm	ELA-DIA15-N-15K	250mm-252mm	15mm-16mm	48.5m	5.43kg
Diamond Ceramic Lagging 20mm	ELA-DIA15-N-20K	250mm-252mm	19mm-20mm	38.8m	7.25kg

COLD BONDED – FRAS

DIMENSIONS

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/Im
Diamond Ceramic Lagging 12mm	ELA-DIA15-F-12K	250mm-252mm	12mm-13mm	60.0m	4.50kg
Diamond Ceramic Lagging 15mm	ELA-DIA15-F-15K	250mm-252mm	15mm-16mm	48.5m	6.63kg
Diamond Ceramic Lagging 20mm	ELA-DIA15-F-20K	250mm-252mm	19mm-20mm	38.8m	7.50

HOT VULCANISED – NAT

DIMENSIONS

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/Im
Diamond Ceramic Lagging 12mm	ELA-DIA15-N-12KV	251mm-255mm	13mm-14.2mm	9.7m	5.40kg
Diamond Ceramic Lagging 15mm	ELA-DIA15-N-15KV	251mm-255mm	16mm-17.2mm	9.7m	6.50kg
Diamond Ceramic Lagging 20mm	ELA-DIA15-N-20KV	251mm-255mm	21mm-22.2mm	9.7m	8.32kg

HOT VULCANISED – FRAS

DIMENSIONS

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/Im
Diamond Ceramic Lagging 12mm	ELA-DIA15-F-12KV	251mm-255mm	13mm-14.2mm	9.7m	5.80kg
Diamond Ceramic Lagging 15mm	ELA-DIA15-F-15KV	251mm-255mm	16mm-17.2mm	9.7m	6.93kg
Diamond Ceramic Lagging 20mm	ELA-DIA15-F-20KV	251mm-255mm	21mm-22.2mm	9.7m	8.80kg

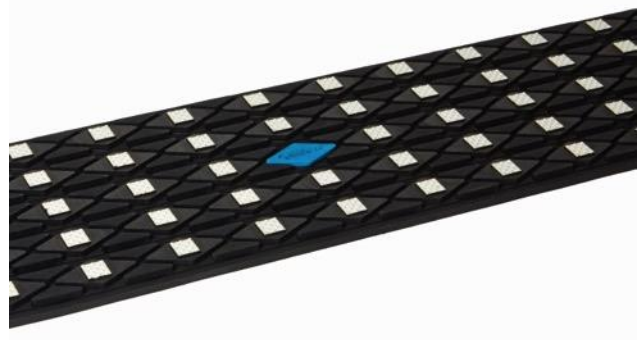
Product code for different lengths:
Add 5-digit number indicating length in mm.

Example:

Roll: 12mm cold bonded 60m roll product
code: ELA-DIA15-N-12K-60000
Strip: 15mm hot vulcanized 1.2m strip length product
code: ELA-DIA15-N-15KV-01200

Thickness variation (all strips/pulley) +/-0.5mm.

Ceramic Lagging with thickness >15mm only recommended
for pulleys with diameters over 600mm.



DIAMOND 15% CERAMIC LAGGING



STORAGE

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

COLD BONDING 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

- <7°C and away from UV and ozone generating equipment 12 months.
Products stored for longer than 6 months will need to be re-tested for adhesion before being used, and the recommended shelf life is 12 months.

ADHESIVES AND PRIMERS

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

Products stored under the above conditions for longer periods of time than recommended need to be re-tested for adhesion before being used.



For more information, please contact:



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