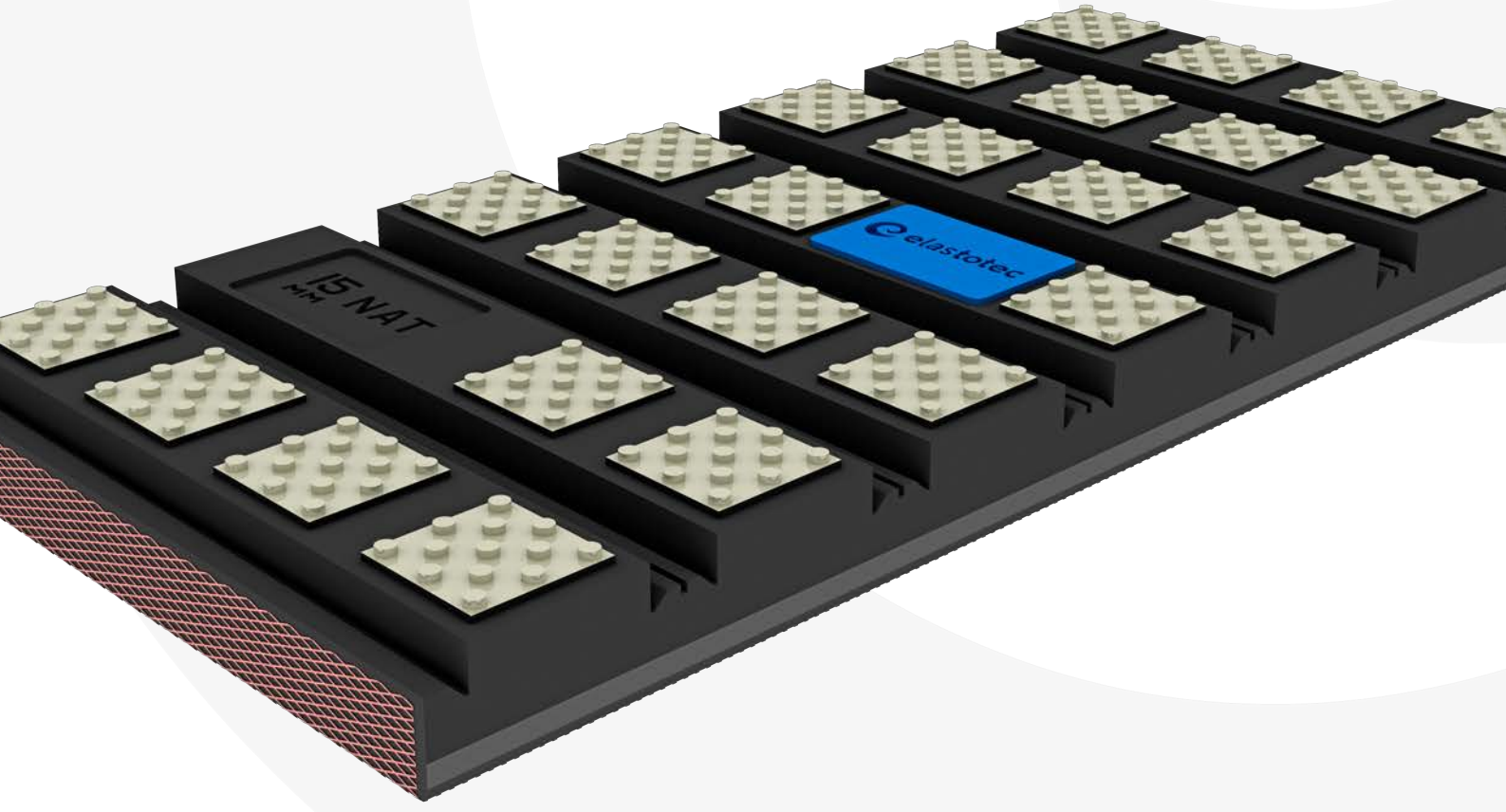
MEDIUM SINGLE ROW 38%
CERAMIC LAGGING

elastotec
ENGINEERED TO PERFORM



MEDIUM SINGLE ROW 38% CERAMIC LAGGING

DESCRIPTION

Ceramic Lagging provides a mechanical interlock between lagging and belt on drives and high abrasion resistance on non-drives.

Ceramic Lagging is specified when there is a requirement for:

- More grip than what rubber lagging provides.
- Longer service life as a result of higher wear resistance than rubber.
- Ceramic Lagging with dimple tiles is used on drive pulleys to increase grip.
- Ceramic Lagging with smooth tiles is used on non-drive pulleys to increase wear resistance/service life.

APPLICATION

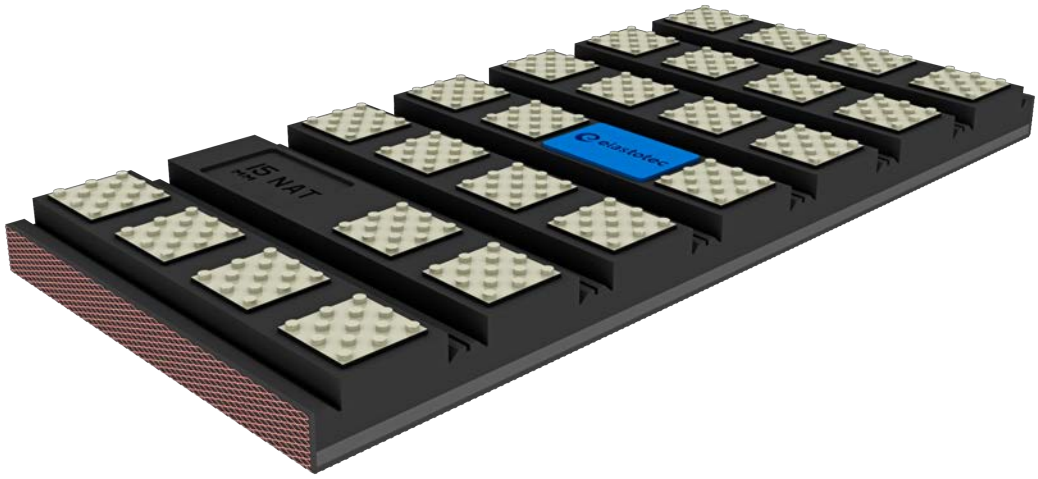
Elastotec Ceramic Lagging can be applied to conveyor drive, tail, snub, bend or take-up pulleys when there's a requirement for more grip than what Rubber Lagging provides or longer service life as a result of higher wear resistance than rubber. Ceramic Lagging is used for pulleys operating under extreme conditions. It is suitable for wet, clay-containing, muddy and abrasive materials. Also for belts under very high tension. Especially suitable for drive pulleys subject to extreme wear to eliminate slippage.

MEDIUM SINGLE ROW 38% CERAMIC LAGGING

KEY FEATURES AND BENEFITS

- Up to 96% Aluminium oxide tile material provide extreme wear resistance.
- Rubber compound blended with CN polymers provide outstanding adhesion to ceramic tiles, rubber and metal.
- Buffed CN bonding layer and buffed edges for optimum cold vulcanised adhesion to the pulley.
- Low sulphur rubber makes rubber hardness stable with age.
- Ceramic tiles bonded to rubber on 5 sides to resist better tile cracking and pull out.
- Can be supplied in cut to size strips with rubber ends to suit customer preference.
- Dimpled tiles for increased grip on drive pulleys and smooth tiles to protect non drive pulleys from damaging the belt cover.
- Can be hot vulcanised to the pulley to achieve best bonding to metal pulley shell.
- Cutting sipes allow adjustment of strip width to suit pulley diameter.
- Supplied in long rolls up to 50m to reduce waste and be more cost effective and reduce stock requirement quantity as one roll fits all pulley widths.

MEDIUM SINGLE ROW 38% CERAMIC LAGGING



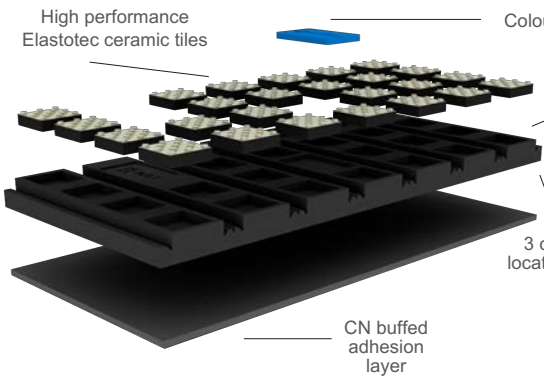
DESIGN

Elastotec Ceramic Lagging consists of vulcanised alumina tiles bonded onto rubber.

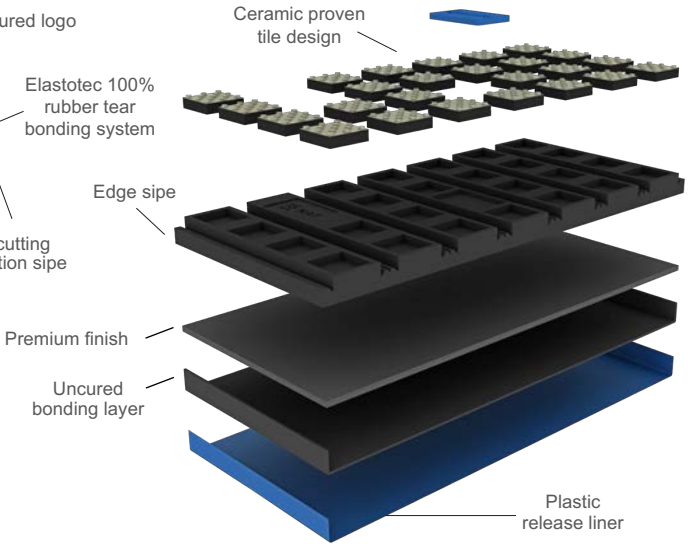
The rubber is bonded to five surfaces of the tile to ensure tile cushioning and better adhesion strength. Tiles provide high abrasion resistance. Flexible rubber backing containing Elastotec rubber compounds is used to provide abrasion resistance and flexibility to the tile.

Elastotec ceramic pulley lagging is made using two different rubber layers extruded together. The top layer being the high abrasion resistant layer to which the tiles are vulcanised onto and the bottom layer being the adhesion CN bonding layer. Elastotec's specially formulated neoprene based CN bonding layer is engineered to achieve ultimate adhesion when bonded to steel pulley surfaces. Elastotec's CN bonding layer has a buffed finish to provide an optimum surface contact area that increases adhesion force.

COLD BONDED



HOT VULCANISED



MEDIUM SINGLE ROW 38% CERAMIC LAGGING

Elastotec Ceramic Lagging is 250mm wide to ensure easy handling and application. It can be supplied in thicknesses from 12mm to 25mm. Thicker rubber allows more deflection of the tiles under the belt. This property provides additional reserves with extreme belt tensions, especially in combination with fabric belts with high elongation or low cover thickness on the running side.

It can be supplied in 3 formats:

1.

In long roll lengths that fit on standard sized pallets to eliminate waste and for cost effective transportation and storage. Ceramic Lagging in rolls can be cut to the pulley face width length to have a full face width ceramic coverage.

2.

For hot vulcanised applications, Ceramic Lagging can be supplied in rolls together with rubber end pieces, which can be added to build your own strips.

3.

In strips with rubber ends to fit pulley face widths.

MEDIUM SINGLE ROW 38% CERAMIC LAGGING

RUBBER SPECIFICATIONS

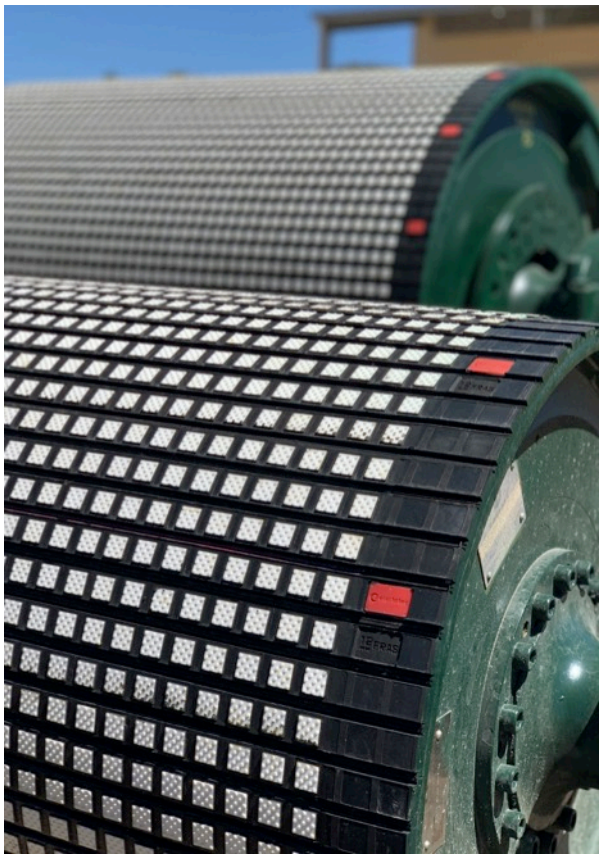
Typical values

	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

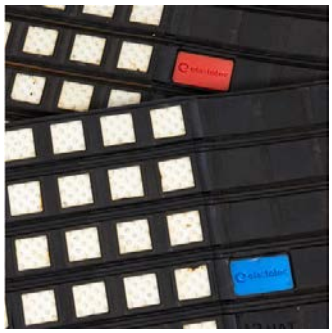
Aluminium oxide	96%
Specific gravity g/cm3	3.7
Vickers hardness HV (10)	1000 plus
Flexural strength (Mpa)	300
Compressive strength (Mpa)	1800
Fracture Toughness (Mpa m1/2)	3.5



MEDIUM SINGLE ROW 38% 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.

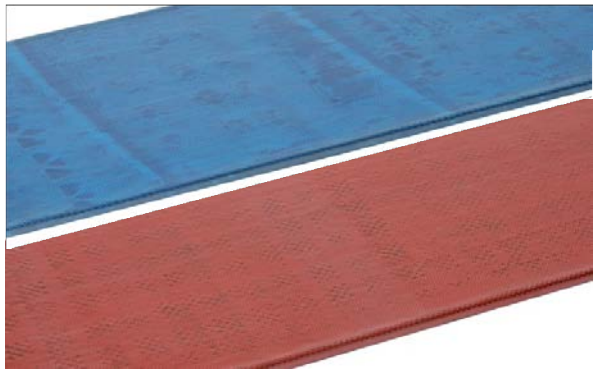
An Elastotec approved applicator using the Elastotec application procedure will achieve reliable adhesion levels that exceed the 9 N/mm industry standard and are typically at 12 N/mm.

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.



MEDIUM SINGLE ROW 38% CERAMIC LAGGING

LAGGING SPECIFICATIONS – MEDIUM SINGLE ROW CERAMIC 38% LAGGING

COLD BONDED – NAT

DIMENSIONS DIMPLE TILES

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
Ceramic Lagging 12mm	ELA-SRC38-N-12K	250mm-252mm	12mm-13mm	58.2m	4.19kg
Ceramic Lagging 15mm	ELA-SRC38-N-15K	250mm-252mm	15mm-16mm	48.5m	4.84kg
Ceramic Lagging 20mm	ELA-SRC38-N-20K	250mm-252mm	19mm-20mm	38.8m	5.23kg

DIMENSIONS PLAIN TILES

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
Ceramic Lagging 12mm	ELA-SRC38-N-12P	250mm-252mm	12mm-13mm	58.2m	4.39kg
Ceramic Lagging 15mm	ELA-SRC38-N-15P	250mm-252mm	15mm-16mm	48.5m	5.04kg
Ceramic Lagging 20mm	ELA-SRC38-N-20P	250mm-252mm	19mm-20mm	38.8m	5.43kg

COLD BONDED – FRAS

DIMENSIONS DIMPLE TILES

PRODUCT	CODE	WIDTH	THICK-NESS	LENGTH	WEIGHT/lm
Ceramic Lagging 12mm	ELA-SRC38-F-12K	250mm-252mm	12mm-13mm	58.2m	4.49kg
Ceramic Lagging 15mm	ELA-SRC38-F-15K	250mm-252mm	15mm-16mm	48.5m	4.79kg
Ceramic Lagging 20mm	ELA-SRC38-F-20K	250mm-252mm	19mm-20mm	38.8m	5.59kg

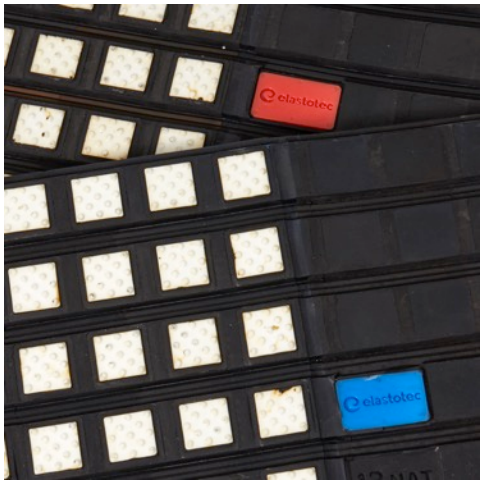
DIMENSIONS PLAIN TILES

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
Ceramic Lagging 12mm	ELA-SRC38-F-12P	250mm-252mm	12mm-13mm	58.2m	4.69kg
Ceramic Lagging 15mm	ELA-SRC38-F-15P	250mm-252mm	15mm-16mm	48.5m	4.99kg
Ceramic Lagging 20mm	ELA-SRC38-F-20P	250mm-252mm	19mm-20mm	38.8m	5.79kg

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

Example
Roll: 12mm 58.2 m roll product code: ELA-SRC38-F-12K-58200
Strip: 15 mm 1.2 m ceramic length strip product code: ELA-SRC38-F-15K-01200
Ceramic strips are supplied with 130mm rubber end pieces at each end

Thickness variation (all strips/pulley) +/-0.5mm
Ceramic Lagging with thickness >15mm only recommended for pulleys with diameters over 600mm.



MEDIUM SINGLE ROW 38% CERAMIC LAGGING

LAGGING SPECIFICATIONS – MEDIUM SINGLE ROW CERAMIC 38% LAGGING

HOT VULCANISED – NAT

DIMENSIONS DIMPLE TILES

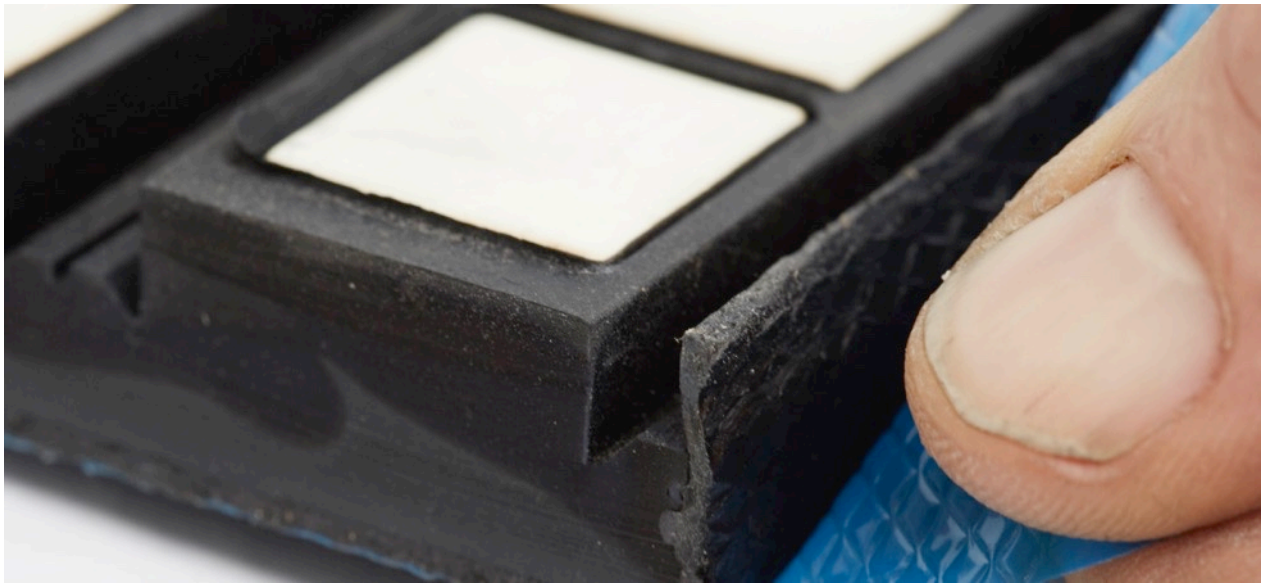
PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
Ceramic Lagging 12mm	ELA-SRC38-N-12KV	251mm-255mm	13mm-14.2mm	9.7m	4.70kg
Ceramic Lagging 15mm	ELA-SRC38-N-15KV	251mm-255mm	16mm-17.2mm	9.7m	5.35kg
Ceramic Lagging 20mm	ELA-SRC38-N-20KV	251mm-255mm	21mm-22.2mm	9.7m	5.74kg
Ceramic Lagging 25mm	ELA-SRC38-N-25KV	251mm-255mm	26mm-27.2mm	9.7m	6.13kg

DIMENSIONS PLAIN TILES

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
Ceramic Lagging 12mm	ELA-SRC38-N-12PV	251mm-255mm	13mm-14.2mm	9.7m	4.90kg
Ceramic Lagging 15mm	ELA-SRC38-N-15PV	251mm-255mm	16mm-17.2mm	9.7m	5.55kg
Ceramic Lagging 20mm	ELA-SRC38-N-20PV	251mm-255mm	21mm-22.2mm	9.7m	5.94kg
Ceramic Lagging 25mm	ELA-SRC38-N-25PV	251mm-255mm	26mm-27.2mm	9.7m	6.33kg

DIMENSIONS END PIECES

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
End Piece 12mm	ELA-SR-END-N-12V	251mm-255mm	13mm-14.2mm	130mm	0.44kg
End Piece 15mm	ELA-SR-END-N-15V	251mm-255mm	16mm-17.2mm	130mm	0.52kg
End Piece 20mm	ELA-SR-END-N-20V	251mm-255mm	21mm-22.2mm	130mm	0.57kg
End Piece 25mm	ELA-SR-END-N-25V	251mm-255mm	26mm-27.2mm	130mm	0.62kg



MEDIUM SINGLE ROW 38% CERAMIC LAGGING

HOT VULCANISED – FRAS

DIMENSIONS DIMPLE TILES

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
Ceramic Lagging 12mm	ELA-SRC38-F-12KV	251mm-255mm	13mm-14.2mm	9.7m	4.70kg
Ceramic Lagging 15mm	ELA-SRC38-F-15KV	251mm-255mm	16mm-17.2mm	9.7m	5.35kg
Ceramic Lagging 20mm	ELA-SRC38-F-20KV	251mm-255mm	21mm-22.2mm	9.7m	5.74kg
Ceramic Lagging 25mm	ELA-SRC38-F-25KV	251mm-255mm	26mm-27.2mm	9.7m	6.13kg

DIMENSIONS PLAIN TILES

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
Ceramic Lagging 12mm	ELA-SRC38-F-12PV	251mm-255mm	13mm-14.2mm	9.7m	4.90kg
Ceramic Lagging 15mm	ELA-SRC38-F-15PV	251mm-255mm	16mm-17.2mm	9.7m	5.55kg
Ceramic Lagging 20mm	ELA-SRC38-F-20PV	251mm-255mm	21mm-22.2mm	9.7m	5.94kg
Ceramic Lagging 25mm	ELA-SRC38-F-25PV	251mm-255mm	26mm-27.2mm	9.7m	6.33kg

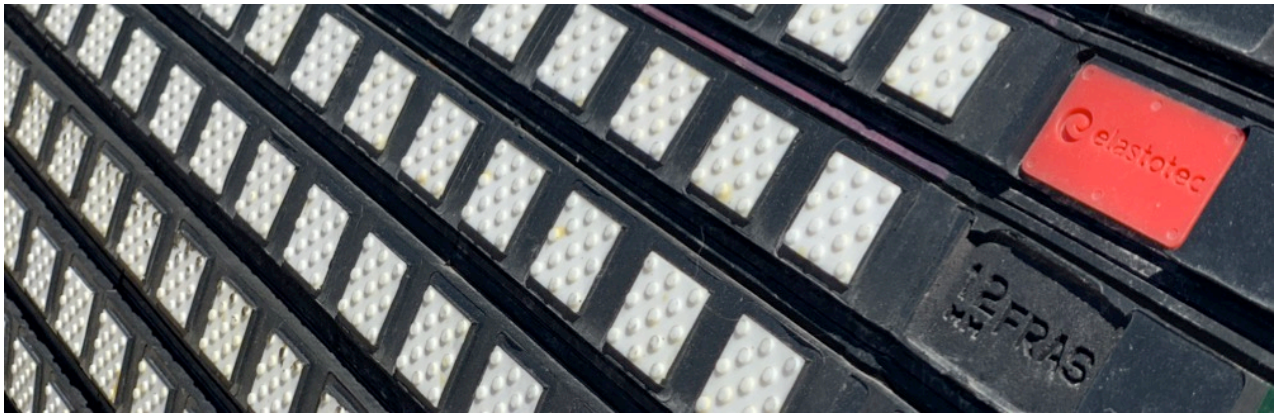
DIMENSIONS END PIECES

PRODUCT	CODE	WIDTH	THICKNESS	LENGTH	WEIGHT/lm
End Piece 12mm	ELA-SR-END-F-12V	251mm-255mm	13mm-14.2mm	130mm	0.50kg
End Piece 15mm	ELA-SR-END-F-15V	251mm-255mm	16mm-17.2mm	130mm	0.60kg
End Piece 20mm	ELA-SR-END-F-20V	251mm-255mm	21mm-22.2mm	130mm	0.66kg
End Piece 25mm	ELA-SR-END-F-25V	251mm-255mm	26mm-27.2mm	130mm	0.71kg

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

Example
Roll: 12mm 9.7m roll product code: ELA-SRC38-F-12K-9700S
15mm 1.2m ceramic length strip product code: ELA-SRC38-F-15K-01200
Ceramic strips are supplied with 130mm rubber end pieces at each end

Thickness variation (all strips/pulley) +/-0.5mm
Ceramic Lagging with thickness >15mm only recommended for pulleys with diameters over 1000mm.



MEDIUM SINGLE ROW 38% 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.

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