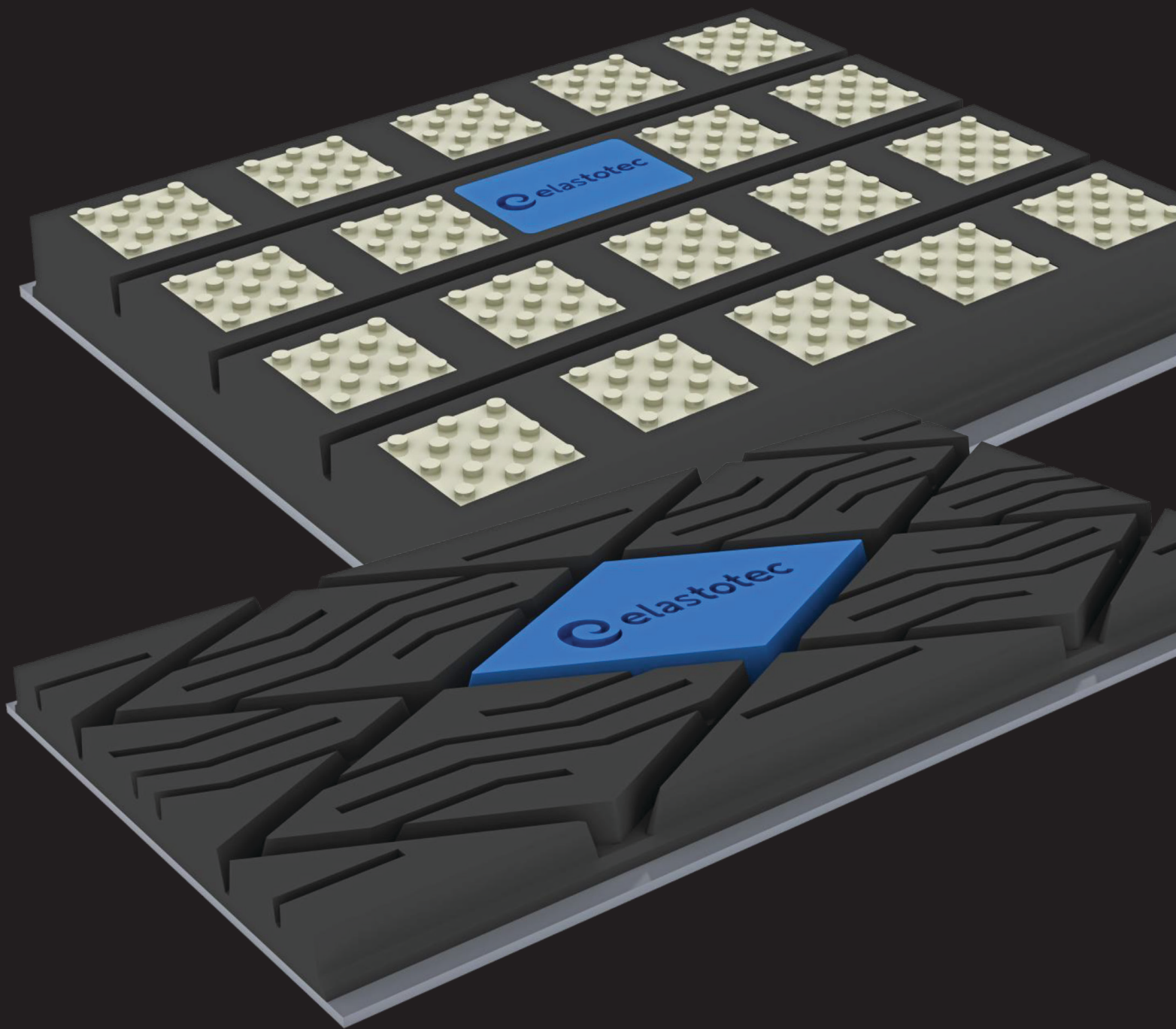




# Slide Lagging



Engineered to Perform



Elastotec Slide Lagging is a quick replaceable lagging system that has been designed to service a wide range of applications.

This system is specially designed to increase conveyor availability as it is applied directly onto the pulley shell. The Slide Lagging pads slide into retainers that have been welded or bolted into the pulley shell. New pads can be easily replaced without removing the pulley from the conveyor.

Elastotec Slide Lagging can be specified when there is a requirement for:

 Easy installation  Quick lagging replacement  Increased productivity

The Elastotec Slide Lagging range is available in a range of rubber compounds including Natural/SBR, MSHA/FRAS, MSHA/FRAS Oil Resistant, and EXTREME rubber, and also rubber-backed ceramic.

Slide Lagging is suitable for low tension applications where a fabric conveyor belt is used.

## Application

Elastotec Slide Lagging is used in applications that require an easy installation and operation. Benefits include the application and removal of the lagging without removing the drum from the conveyor system and no need to sandblast pulley shell before application, Slide Lagging products are recommended for the mining, quarry, grain and cement industries.



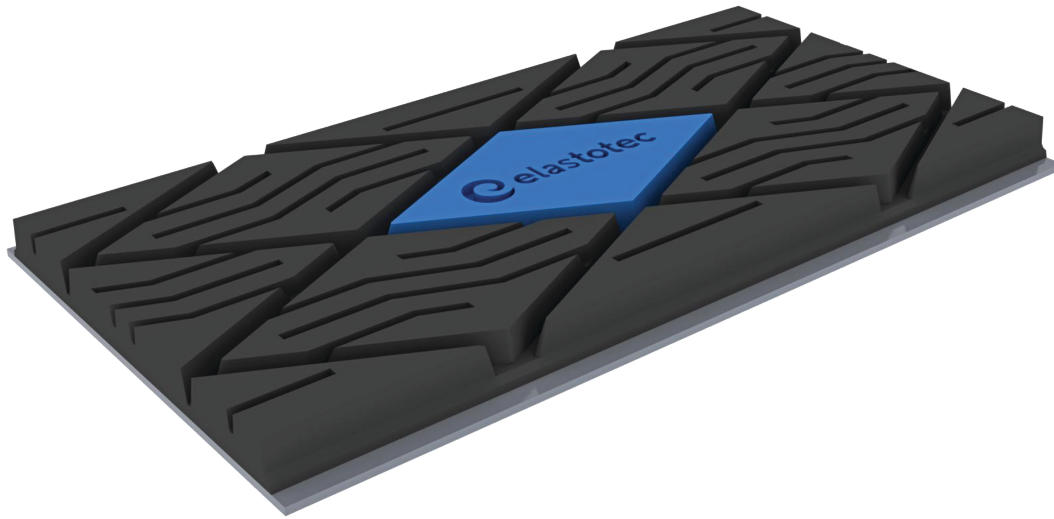
## Key Features and Benefits

- Available in a range of rubber and ceramic options.
- Supplied in kits to suit custom pulley diameters and face widths for easy installation.
- Easy installation and quick replacement without removing the pulley.
- Products are colour coded to easily identify the rubber compound.
- Available with crowned end pieces to assist with belt tracking  
High quality steel plates formed at the factory that can be bent to shape for each individual pulley diameter.
- Rust resistant metal retainers permanently welded or bolted to the pulley shell to secure the lagging pads in place.

Elastotec Slide Lagging steel plates are 135mm wide to ensure easy handling and application. Slide Lagging pads are available in 1687mm length as standard, but complete installation packages cut to size can be supplied. Pads are shaped to meet each pulley diameter. Designed for direct application to the pulley. The plates slide in and out of special retainers which are securely welded to the pulley shell.

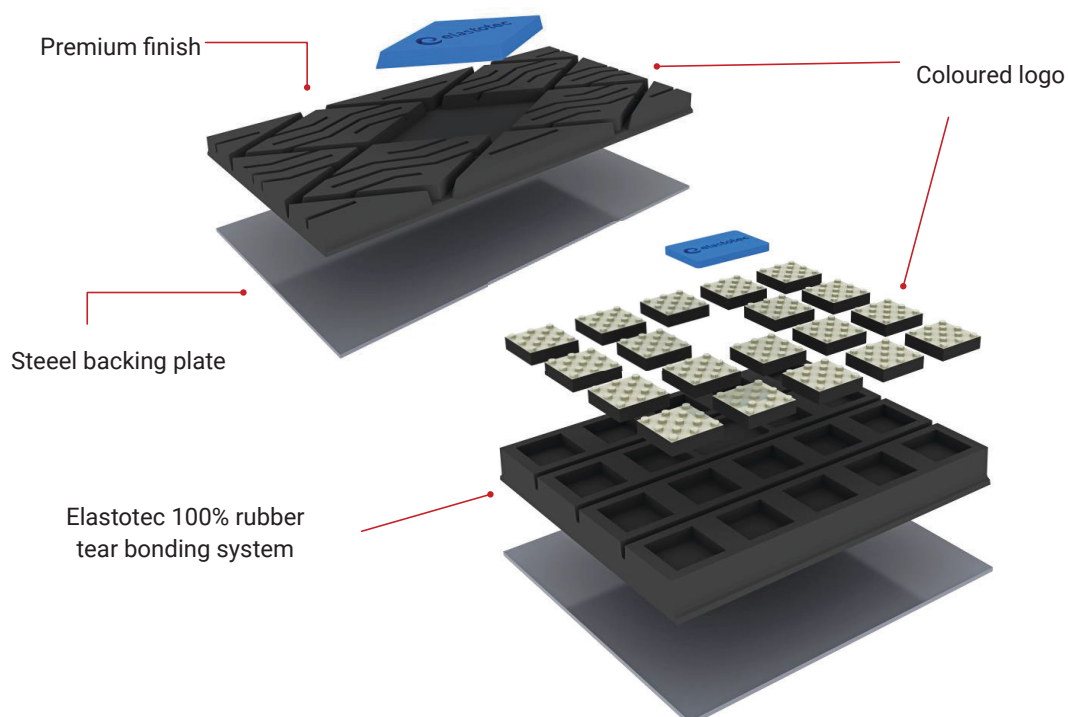


# Design



Elastotec Slide Lagging has specially designed elastomers moulded under high pressure to heavy duty steel plates, which are shaped and cut to fit each pulley diameter and face. The plates slide in and out of steel retainers which are welded to the pulley shell.

There are multiple designs for both rubber and ceramic slide lagging, all moulded under pressure to the steel plates to ensure no separation between the steel and the compound. Elastotec Slide Lagging steel plates are 135mm wide to ensure easy handling, with 5mm of exposed steel at each side to slide between the retainers. Rubber Slide Lagging is 15mm thick and Ceramic Slide Lagging is 18mm thick. Pad length is 1687mm and can be cut and bent to suit the pulley size.



## RUBBER SPECIFICATIONS

Typical values

| PRODUCT                                                                                               | NAT                               | FRAS                             | FRAS OIL RESISTANT               | EXTREME                          | EPDM                             |
|-------------------------------------------------------------------------------------------------------|-----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| <b>Polymer</b>                                                                                        | SBR/Natural                       | Blend                            | Polychloroprene                  | Proprietary Blend                | EPDM                             |
| <b>Tensile strength (MPa) min ISO37</b>                                                               | 20.0                              | 18.0                             | 15.0                             | 16.0                             | 10.0                             |
| <b>Elongation min ISO37</b>                                                                           | 550%                              | 500%                             | 550%                             | 500%                             | 350%                             |
| <b>Hardness (shore A) ISO868</b>                                                                      | 65+/-5                            | 65+/-5                           | 65+/-5                           | 60+/-5                           | 70+/-5                           |
| <b>Abrasion resistance max vol. loss ISO 4649 method A (non-rotating)</b>                             | 70mm <sup>3</sup>                 | 150mm <sup>3</sup>               | 175mm <sup>3</sup>               | 29mm <sup>3</sup>                | 140mm <sup>3</sup>               |
| <b>FRAS - MDG3608 and MSHA Standards</b>                                                              | NA                                | PASSED                           | PASSED                           | NA                               | NA                               |
| <b>Heat Ageing:</b><br><b>Tensile Strength (TS)</b><br><b>Elongation (EL)</b><br><b>Hardness (HD)</b> | TS +3%<br>EL -15%<br>HD +2 points | TS +3%<br>EL -6%<br>HD +2 points | TS +5%<br>EL -1%<br>HD +3 points | TS +1%<br>EL +2%<br>HD +3 points | TS +5%<br>EL -1%<br>HD +3 points |
| <b>Continuous Operating Temperature</b>                                                               | -40/+70°C                         | -40/+70°C                        | -40/+120°C                       | -40/+70°C                        | -40/+150°C                       |
| <b>Logo Colour Coding</b>                                                                             |                                   |                                  |                                  |                                  |                                  |

\* Heat ageing results at 70°C after 70 hours.

\* Both the FRAS and FRAS Oil Resistant rubber compounds are MDG3608 and MSHA certified. A copy of the certificates can be provided upon request.

\* EPDM has resistance to heat, and some acids and chemicals. Contact your Elastotec representative to confirm its suitability for your application.

## Ceramic Specifications

Typical values

|                                                 |                  |
|-------------------------------------------------|------------------|
| <b>Aluminium oxide</b>                          | <b>96%</b>       |
| <b>Specific gravity g/cm3</b>                   | <b>3.7</b>       |
| <b>Vickers hardness HV (10)</b>                 | <b>1000 plus</b> |
| <b>Flexural strength (Mpa)</b>                  | <b>300</b>       |
| <b>Compressive strength (Mpa)</b>               | <b>1800</b>      |
| <b>Fracture Toughness (Mpa m<sup>1/2</sup>)</b> | <b>3.5</b>       |



## ORDERING SLIDE LAGGING FOR A SPECIFIC PULLEY SIZE

Slide Lagging is inventoried in standard factory produced lengths to minimise stock keeping. There are two ways of applying Slide Lagging and this will affect the way it should be ordered.

### THE BUTT SEAM METHOD

This method is designed to be the most economic option. Pads are cut to fit the pulley face width and the remaining ends of each cut pad are used butted together. Some pad rows are provided with full face width pads and some are provided with pad sections that make up the full face width.

Use the 1687mm pads to make up the pieces for the different rows. Pieces shorter than 100mm should be discarded. The number of 1687mm pads required for butt seam application for most common pulley diameters can be obtained from the table below or use the formula presented.

|             | BUTT SEAM METHOD  |     |     |     |     |     |     |     |      |      |      |      |      |      |      |  |  |
|-------------|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|--|--|
|             | PULLEY FACE WIDTH |     |     |     |     |     |     |     |      |      |      |      |      |      |      |  |  |
| PULLEY DIAM | 200               | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 |  |  |
| 200         | 1                 | 1   | 1   | 1   | 2   | 2   | 2   | 2   | 2    | 2    | 3    | 3    | 3    | 3    | 3    |  |  |
| 300         | 1                 | 1   | 2   | 2   | 2   | 3   | 3   | 3   | 3    | 4    | 4    | 4    | 5    | 5    | 5    |  |  |
| 400         | 1                 | 2   | 2   | 3   | 3   | 3   | 4   | 4   | 5    | 5    | 5    | 6    | 6    | 7    | 7    |  |  |
| 500         | 2                 | 2   | 3   | 3   | 4   | 4   | 5   | 5   | 6    | 6    | 7    | 7    | 8    | 9    | 9    |  |  |
| 600         | 2                 | 2   | 3   | 4   | 4   | 5   | 6   | 6   | 7    | 8    | 8    | 9    | 10   | 10   | 11   |  |  |
| 700         | 2                 | 3   | 4   | 4   | 5   | 6   | 7   | 7   | 8    | 9    | 10   | 11   | 11   | 12   | 13   |  |  |
| 800         | 2                 | 3   | 4   | 5   | 6   | 7   | 8   | 9   | 9    | 10   | 11   | 12   | 13   | 14   | 15   |  |  |
| 900         | 3                 | 4   | 5   | 6   | 7   | 8   | 9   | 10  | 11   | 12   | 13   | 14   | 15   | 16   | 17   |  |  |
| 1000        | 3                 | 4   | 5   | 6   | 7   | 8   | 10  | 11  | 12   | 13   | 14   | 15   | 16   | 17   | 19   |  |  |
| 1100        | 3                 | 4   | 5   | 7   | 8   | 9   | 10  | 12  | 13   | 14   | 15   | 17   | 18   | 19   | 20   |  |  |
| 1200        | 3                 | 5   | 6   | 7   | 9   | 10  | 11  | 13  | 14   | 15   | 17   | 18   | 20   | 21   | 22   |  |  |
| 1300        | 3                 | 5   | 6   | 8   | 9   | 11  | 12  | 14  | 15   | 17   | 18   | 20   | 21   | 23   | 24   |  |  |
| 1400        | 4                 | 5   | 7   | 9   | 10  | 12  | 13  | 15  | 17   | 18   | 20   | 21   | 23   | 25   | 26   |  |  |
| 1500        | 4                 | 6   | 7   | 9   | 11  | 13  | 14  | 16  | 18   | 19   | 21   | 23   | 25   | 26   | 28   |  |  |
| 1600        | 4                 | 6   | 8   | 10  | 12  | 13  | 15  | 17  | 19   | 21   | 23   | 24   | 26   | 28   | 30   |  |  |

#### EXAMPLE PULLEY DIAMETER 600MM FACE WIDTH 1000MM

- Multiply the pulley diameter by 3.14 and divide this by 160mm (135mm pad width + 25mm allowance for retainer)  $\text{Diam mm} \times 3.14 / 160 \text{ mm}$ . Round down to the closest whole number.  
  
Example pulley 600mm diam  $(600\text{mm} \times 3.14) / 160\text{mm} = 11$  rows.
- Multiply the number of rows of pads by the pulley face width Number of pads x pulley face width (mm)  
  
Example pulley 1000mm face width  $11 \times 1000\text{mm} = 11000\text{mm}$
- Divide by 1687mm to determine the quantity of full length pads needed. Round up to the next full length.  
 $\text{Total length required (mm)} / \text{Pad length (mm)}$   
  
Example pulley  $1000\text{mm} / 1687\text{mm} = 6.5$  pads or 7 full length pads required.

### THE FULL WIDTH METHOD

This method provides no vertical butt seams. Each pad row is provided with full face width pads that have no butt seams.

When no butt seams are desired, the number of full length pads required will depend entirely on the pulley size and the quantity of face width pad lengths that can be cut from one standard length pad.

The number of 1687mm pads required for full width method application for most common pulley diameters can be obtained from the table below or use the formula presented.

|             | FULL WIDTH METHOD |     |     |     |     |     |     |     |      |      |      |      |      |      |      |  |  |
|-------------|-------------------|-----|-----|-----|-----|-----|-----|-----|------|------|------|------|------|------|------|--|--|
|             | PULLEY FACE WIDTH |     |     |     |     |     |     |     |      |      |      |      |      |      |      |  |  |
| PULLEY DIAM | 200               | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1100 | 1200 | 1300 | 1400 | 1500 | 1600 |  |  |
| 200         | 1                 | 1   | 1   | 1   | 2   | 2   | 2   | 3   | 3    | 3    | 3    | 3    | 3    | 3    | 3    |  |  |
| 300         | 1                 | 1   | 2   | 2   | 3   | 3   | 3   | 5   | 5    | 5    | 5    | 5    | 5    | 5    | 5    |  |  |
| 400         | 1                 | 2   | 2   | 3   | 4   | 4   | 4   | 7   | 7    | 7    | 7    | 7    | 7    | 7    | 7    |  |  |
| 500         | 2                 | 2   | 3   | 3   | 5   | 5   | 5   | 9   | 9    | 9    | 9    | 9    | 9    | 9    | 9    |  |  |
| 600         | 2                 | 3   | 3   | 4   | 6   | 6   | 6   | 11  | 11   | 11   | 11   | 11   | 11   | 11   | 11   |  |  |
| 700         | 2                 | 3   | 4   | 5   | 7   | 7   | 7   | 13  | 13   | 13   | 13   | 13   | 13   | 13   | 13   |  |  |
| 800         | 2                 | 3   | 4   | 5   | 8   | 8   | 8   | 15  | 15   | 15   | 15   | 15   | 15   | 15   | 15   |  |  |
| 900         | 3                 | 4   | 5   | 6   | 9   | 9   | 9   | 17  | 17   | 17   | 17   | 17   | 17   | 17   | 17   |  |  |
| 1000        | 3                 | 4   | 5   | 7   | 10  | 10  | 10  | 19  | 19   | 19   | 19   | 19   | 19   | 19   | 19   |  |  |
| 1100        | 3                 | 5   | 6   | 7   | 11  | 11  | 11  | 21  | 21   | 21   | 21   | 21   | 21   | 21   | 21   |  |  |
| 1200        | 3                 | 5   | 6   | 8   | 12  | 12  | 12  | 23  | 23   | 23   | 23   | 23   | 23   | 23   | 23   |  |  |
| 1300        | 4                 | 5   | 7   | 9   | 13  | 13  | 13  | 25  | 25   | 25   | 25   | 25   | 25   | 25   | 25   |  |  |
| 1400        | 4                 | 6   | 7   | 9   | 14  | 14  | 14  | 27  | 27   | 27   | 27   | 27   | 27   | 27   | 27   |  |  |
| 1500        | 4                 | 6   | 8   | 10  | 15  | 15  | 15  | 29  | 29   | 29   | 29   | 29   | 29   | 29   | 29   |  |  |
| 1600        | 4                 | 7   | 8   | 11  | 16  | 16  | 16  | 31  | 31   | 31   | 31   | 31   | 31   | 31   | 31   |  |  |

#### EXAMPLE PULLEY DIAMETER 600MM FACE WIDTH 1000MM

- Multiply the pulley diameter by 3.14 and divide this by 160mm (135mm pad width + 25mm allowance for retainer)  
  
 $\text{Diam mm} \times 3.14 / 160\text{mm}$ .  
Round down to the closest whole number. Example pulley 600mm diam  $(600\text{mm} \times 3.14) / 160\text{mm} = 11$  rows.
- Calculate how many full width sections you can get from a standard size pad. Divide the standard pad length by the pulley face width.  
  
 $1687\text{mm} / 1000\text{mm} = 1.7$   
Round down to the closest whole number.  
This means that you cannot get more than 1 full row length pad from each standard pad.  
Divide the amount of rows by the amount of full widths you can get out of one pad.  
  
Example pulley  $11 / 1 = 11$  full length pads required. 7 full length pads required.

## SPECIFICATIONS – RUBBER SLIDE LAGGING

### RUBBER SLIDE LAGGING – NATURAL

| PRODUCT            | CODE                    | WIDTH  | THICKNESS | MAX ROLL LENGTH | WEIGHT/pad |
|--------------------|-------------------------|--------|-----------|-----------------|------------|
| Diamond Rubber NAT | ELA-SLIDE-DIA-N-15-1687 | 135 mm | 15mm      | 1687mm          | -          |

### RUBBER SLIDE LAGGING – FRAS

| PRODUCT             | CODE                    | WIDTH  | THICKNESS | MAX ROLL LENGTH | WEIGHT/pad |
|---------------------|-------------------------|--------|-----------|-----------------|------------|
| Diamond Rubber FRAS | ELA-SLIDE-DIA-N-15-1687 | 135 mm | 15mm      | 1687mm          | -          |

### RUBBER SLIDE LAGGING – FRAS OIL RESISTANT

| PRODUCT            | CODE                    | WIDTH  | THICKNESS | MAX ROLL LENGTH | WEIGHT/pad |
|--------------------|-------------------------|--------|-----------|-----------------|------------|
| Diamond Rubber FOR | ELA-SLIDE-DIA-J-15-1687 | 135 mm | 15mm      | 1687mm          | -          |

### RUBBER SLIDE LAGGING – EXTREME

| PRODUCT            | CODE                    | WIDTH  | THICKNESS | MAX ROLL LENGTH | WEIGHT/pad |
|--------------------|-------------------------|--------|-----------|-----------------|------------|
| Diamond Rubber EXT | ELA-SLIDE-DIA-H-15-1687 | 135 mm | 15mm      | 1687mm          | -          |

### RUBBER SLIDE LAGGING – EPDM

| PRODUCT             | CODE                    | WIDTH  | THICKNESS | MAX ROLL LENGTH | WEIGHT/pad |
|---------------------|-------------------------|--------|-----------|-----------------|------------|
| Diamond Rubber EPDM | ELA-SLIDE-DIA-M-15-1687 | 135 mm | 15mm      | 1687mm          | -          |



## SPECIFICATIONS – CERAMIC SLIDE LAGGING

### CERAMIC SLIDE LAGGING – NATURAL

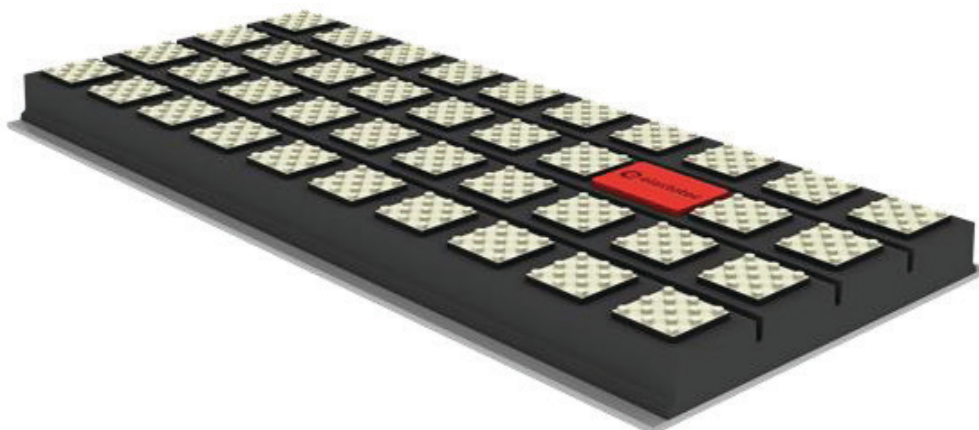
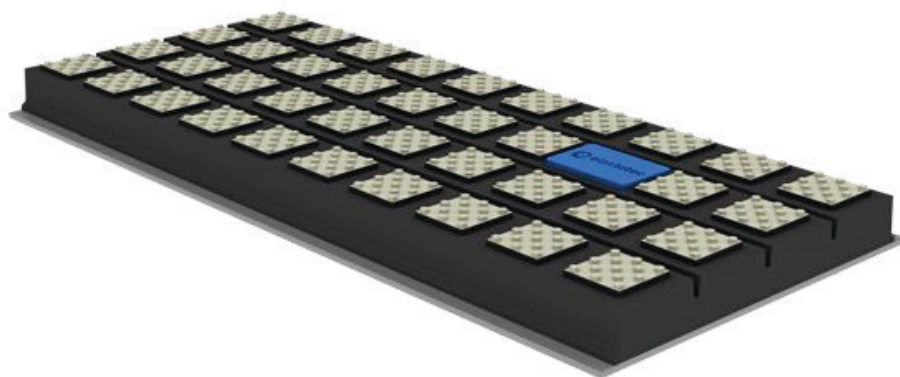
| PRODUCT           | CODE                           | WIDTH  | THICKNESS | MAX ROLL LENGTH | kg/pad |
|-------------------|--------------------------------|--------|-----------|-----------------|--------|
| Ceramic DRIVE     | ELA-SLIDE-SRC38-N-18K-SQ-01687 | 135 mm | 17mm      | 1687mm          | -      |
| Ceramic NON DRIVE | ELA-SLIDE-SRC38-N-18P-SQ-01687 | 135mm  | 17mm      | 1687mm          | -      |

### CERAMIC SLIDE LAGGING – FRAS

| PRODUCT           | CODE                           | WIDTH  | THICKNESS | MAX ROLL LENGTH | kg/pad |
|-------------------|--------------------------------|--------|-----------|-----------------|--------|
| Ceramic DRIVE     | ELA-SLIDE-SRC38-F-18K-SQ-01687 | 135 mm | 17mm      | 1687mm          | -      |
| Ceramic NON DRIVE | ELA-SLIDE-SRC38-F-18P-SQ-01687 | 135mm  | 17mm      | 1687mm          | -      |

### CERAMIC SLIDE LAGGING – FRAS OIL RESISTANT

| PRODUCT           | CODE                           | WIDTH  | THICKNESS | MAX ROLL LENGTH | kg/pad |
|-------------------|--------------------------------|--------|-----------|-----------------|--------|
| Ceramic DRIVE     | ELA-SLIDE-SRC38-J-18K-SQ-01687 | 135 mm | 17mm      | 1687mm          | -      |
| Ceramic NON DRIVE | ELA-SLIDE-SRC38-J-18P-SQ-01687 | 135mm  | 17mm      | 1687mm          | -      |



## SPECIFICATIONS – CROWNED RUBBER END PIECES

### CROWNED RUBBER END PIECE – NATURAL

| PRODUCT            | CODE                       | WIDTH  | THICKNESS   | MAX ROLL LENGTH | WEIGHT/pad |
|--------------------|----------------------------|--------|-------------|-----------------|------------|
| Crowned Rubber NAT | ELA-SLIDE-CRW-END-DIA-N-15 | 135 mm | 15mm – 10mm | 375mm           | -          |

### CROWNED RUBBER END PIECE – FRAS

| PRODUCT            | CODE                       | WIDTH  | THICKNESS   | MAX ROLL LENGTH | WEIGHT/pad |
|--------------------|----------------------------|--------|-------------|-----------------|------------|
| Crowned Rubber NAT | ELA-SLIDE-CRW-END-DIA-F-15 | 135 mm | 15mm – 10mm | 375mm           | -          |

### CROWNED RUBBER END PIECE – FRAS OIL RESISTANT

| PRODUCT            | CODE                       | WIDTH  | THICKNESS   | MAX ROLL LENGTH | WEIGHT/pad |
|--------------------|----------------------------|--------|-------------|-----------------|------------|
| Crowned Rubber NAT | ELA-SLIDE-CRW-END-DIA-F-15 | 135 mm | 15mm – 10mm | 375mm           | -          |

### CROWNED RUBBER END PIECE – EXTREME

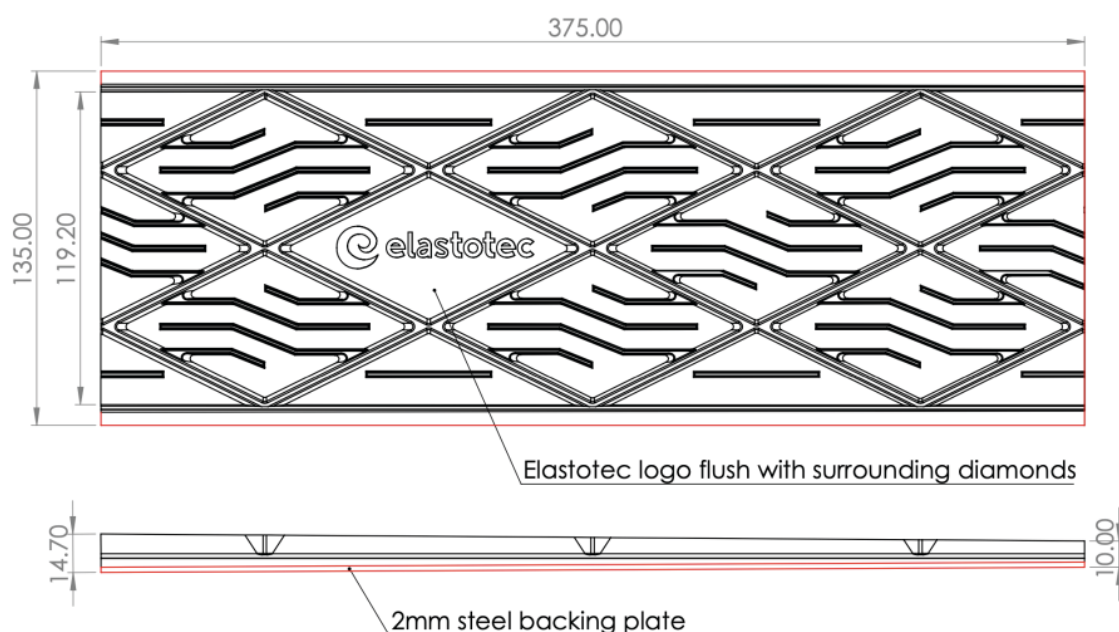
| PRODUCT            | CODE                       | WIDTH  | THICKNESS   | MAX ROLL LENGTH | WEIGHT/pad |
|--------------------|----------------------------|--------|-------------|-----------------|------------|
| Crowned Rubber EXT | ELA-SLIDE-CRW-END-DIA-H-15 | 135 mm | 15mm – 10mm | 375mm           | -          |

### CROWNED RUBBER END PIECE – EPDM

| PRODUCT             | CODE                       | WIDTH  | THICKNESS   | MAX ROLL LENGTH | WEIGHT/pad |
|---------------------|----------------------------|--------|-------------|-----------------|------------|
| Crowned Rubber EPDM | ELA-SLIDE-CRW-END-DIA-M-15 | 135 mm | 15mm – 10mm | 375mm           | -          |

\* Crowned Rubber end pieces are installed at each end of every row, with standard Rubber Diamond Slide Lagging installed through the center at the required length to complete each row.

\* Crowned Rubber end pieces are tapered from 15mm thick down to 10mm thick.



# 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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