The original European red polyurethane belting to replace traditional belts, minimising downtime through rapid replacement.

- Replaces round vee and link belts (A, M and B sections).
- Can be supplied continuous or cut-to-length and can be joined by welding, or by using the patent fastener.
- Eliminates motor/pulley adjustment.
- Enables user to fix belts in situ thereby reducing costly down time.
- Results in less waste, as differing lengths can be joined together.
- Allows for minimal stockholding – one reel for all ‘A’ section belts, one reel for all ‘B’ section belts, etc.

1. Redthane in engineering.
2. Redthane in woodworking.
3. Redthane being extruded.
Greenthane is a high quality polyurethane based belting product, used in conveying and power transmission applications, where higher loads apply.

FEATURES OF GREENTHANE BELTING

- High quality raw materials
- High elasticity and flexibility
- Eliminates need for special pulleys
- Requires minimal or no maintenance
- Outstanding resistance to many chemicals and oils
- Abrasion resistant
- Greenthane Belting can be supplied in any of the following:
  - Continuous
  - Cut-to-length
  - Welded endless
- Allows Serpentine Drives
JOINING

USING THE ORIGINAL PATENTED INTERNAL FASTENER

- Check length of belting, reduce length by 7%, cut to length
- Using long nose pliers, insert fastener into the tube, taking care not to damage the flange.
- Insert the fastener into the tube at an angle and “walk” in until completely home
- Insert the fastener into the other end of the tube using the same principle to form an endless belt
- This operation may be carried out on the machine if necessary
- Stretch on to pulleys

WELDING PROCEDURE

1. Cut appropriate belt to required length and insert into jig, leaving gap for welding blade.
2. Melt the ends using the welding tool.
3. Join melted ends together.
4. Allow to cool, remove from jig and remove flash.
## TECHNICAL DATA

The tables below will allow you to calculate the correct belt size to use for your application.

### Minimum Pulley diameters in mm

<table>
<thead>
<tr>
<th>Section</th>
<th>Redthane</th>
<th>Greenthane</th>
</tr>
</thead>
<tbody>
<tr>
<td>3mm Solid</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>4mm Solid</td>
<td>35</td>
<td>50</td>
</tr>
<tr>
<td>5mm Solid</td>
<td>40</td>
<td>50</td>
</tr>
<tr>
<td>5mm Tubular</td>
<td>50</td>
<td>N/A</td>
</tr>
<tr>
<td>6mm Solid</td>
<td>50</td>
<td>60</td>
</tr>
<tr>
<td>6mm Tubular</td>
<td>60</td>
<td>N/A</td>
</tr>
<tr>
<td>8mm Solid</td>
<td>65</td>
<td>80</td>
</tr>
<tr>
<td>8mm Tubular</td>
<td>80</td>
<td>N/A</td>
</tr>
<tr>
<td>10mm Solid</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>10mm Tubular</td>
<td>100</td>
<td>N/A</td>
</tr>
<tr>
<td>10mm Vee</td>
<td>65</td>
<td>N/A</td>
</tr>
<tr>
<td>12mm Solid</td>
<td>85</td>
<td>120</td>
</tr>
<tr>
<td>12mm Tubular</td>
<td>120</td>
<td>N/A</td>
</tr>
<tr>
<td>13mm Vee</td>
<td>85</td>
<td>N/A</td>
</tr>
<tr>
<td>17mm Vee</td>
<td>150</td>
<td>N/A</td>
</tr>
<tr>
<td>20mm Vee</td>
<td>170</td>
<td>N/A</td>
</tr>
</tbody>
</table>

### Belt Selection

Determine arc of contact factor from the following table:

- D = Large Pulley Dia. (mm)
- d = Small Pulley Dia. (mm)
- X = Distance between Centres (mm)

<table>
<thead>
<tr>
<th>D - d</th>
<th>20</th>
<th>30</th>
<th>40</th>
<th>50</th>
<th>60</th>
<th>80</th>
<th>100</th>
<th>120</th>
<th>150</th>
<th>200</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>100</td>
<td>1.05</td>
<td>1.07</td>
<td>1.10</td>
<td>1.14</td>
<td>1.17</td>
<td>1.25</td>
<td>1.35</td>
<td>1.46</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>120</td>
<td>1.04</td>
<td>1.06</td>
<td>1.09</td>
<td>1.11</td>
<td>1.14</td>
<td>1.18</td>
<td>1.28</td>
<td>1.35</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>140</td>
<td>1.03</td>
<td>1.05</td>
<td>1.08</td>
<td>1.09</td>
<td>1.12</td>
<td>1.16</td>
<td>1.20</td>
<td>1.28</td>
<td>1.35</td>
<td>–</td>
</tr>
<tr>
<td>200</td>
<td>1.02</td>
<td>1.04</td>
<td>1.07</td>
<td>1.08</td>
<td>1.09</td>
<td>1.12</td>
<td>1.14</td>
<td>1.18</td>
<td>1.28</td>
<td>1.40</td>
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<td>250</td>
<td>1.01</td>
<td>1.03</td>
<td>1.05</td>
<td>1.07</td>
<td>1.08</td>
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<td>1.13</td>
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<td>1.25</td>
</tr>
<tr>
<td>300</td>
<td>1.00</td>
<td>1.02</td>
<td>1.05</td>
<td>1.06</td>
<td>1.06</td>
<td>1.07</td>
<td>1.08</td>
<td>1.10</td>
<td>1.14</td>
<td>1.18</td>
</tr>
<tr>
<td>400</td>
<td>–</td>
<td>–</td>
<td>1.03</td>
<td>1.05</td>
<td>1.04</td>
<td>1.06</td>
<td>1.07</td>
<td>1.08</td>
<td>1.10</td>
<td>1.15</td>
</tr>
<tr>
<td>500</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1.03</td>
<td>1.04</td>
<td>1.05</td>
<td>1.06</td>
<td>1.08</td>
<td>1.10</td>
</tr>
<tr>
<td>600</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1.04</td>
<td>1.05</td>
<td>1.07</td>
<td>1.08</td>
<td>1.08</td>
</tr>
<tr>
<td>800</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>–</td>
<td>1.04</td>
<td>1.06</td>
<td>1.06</td>
</tr>
</tbody>
</table>

Multiply power to be transmitted by arc of contact factor to obtain corrected power.

Calculate belt speed (in metres per second) and select belt option from following table.

### Power transmitted kW

<table>
<thead>
<tr>
<th>Speed</th>
<th>5 mm</th>
<th>6 mm</th>
<th>8 mm</th>
<th>10 mm</th>
<th>12 mm</th>
<th>5 mm</th>
<th>6 mm</th>
<th>8 mm</th>
<th>10 mm</th>
<th>12 mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.5</td>
<td>0.06</td>
<td>0.09</td>
<td>0.15</td>
<td>0.20</td>
<td>0.35</td>
<td>0.07</td>
<td>0.10</td>
<td>0.17</td>
<td>0.26</td>
<td>0.41</td>
</tr>
<tr>
<td>5</td>
<td>0.12</td>
<td>0.17</td>
<td>0.24</td>
<td>0.45</td>
<td>0.70</td>
<td>0.14</td>
<td>0.20</td>
<td>0.38</td>
<td>0.60</td>
<td>0.83</td>
</tr>
<tr>
<td>10</td>
<td>0.22</td>
<td>0.34</td>
<td>0.58</td>
<td>0.85</td>
<td>1.30</td>
<td>0.26</td>
<td>0.38</td>
<td>0.62</td>
<td>1.05</td>
<td>1.50</td>
</tr>
<tr>
<td>15</td>
<td>0.33</td>
<td>0.50</td>
<td>0.91</td>
<td>1.20</td>
<td>1.90</td>
<td>0.38</td>
<td>0.56</td>
<td>1.05</td>
<td>1.50</td>
<td>2.25</td>
</tr>
<tr>
<td>20</td>
<td>0.39</td>
<td>0.58</td>
<td>1.00</td>
<td>1.50</td>
<td>2.20</td>
<td>0.41</td>
<td>0.60</td>
<td>1.07</td>
<td>1.58</td>
<td>2.40</td>
</tr>
</tbody>
</table>

### Static Bearing Load kg

<table>
<thead>
<tr>
<th></th>
<th>7</th>
<th>10</th>
<th>20</th>
<th>27</th>
<th>40</th>
<th>8</th>
<th>14</th>
<th>23</th>
<th>30</th>
<th>50</th>
</tr>
</thead>
</table>

The above values are theoretical and for guidance only. Users should satisfy themselves as to the suitability of any particular belt for their applications.

Should you require further assistance, please contact our Technical Services Department.
BESPOKE EXTRUSIONS

Subject to minimum runs, PPL will extrude customer designed profiles, or replicate submitted samples. We design and trial dies in house and offer a wide range of colours and hardesses.

- 65°A to 97°A hardness range
- Cut to length facilities
- Coiling
- Printing (logo etc.)
- Solid sections
- Hollow sections
- F.D.A. grades available

PPL's range of polyurethane extrusions can be used in all industries, including:

- MINING AND QUARRYING
- FOOD INDUSTRY
- BRICK MANUFACTURE
- ROOF TILE MANUFACTURE
- AGRICULTURE
- DRUM MANUFACTURE
- METAL WORKING INDUSTRY
- WOODWORKING
- PRINTING, PAPER AND BOARD
- TEXTILES
- GLASS
- CERAMICS
- PHARMACEUTICAL
- MATERIALS HANDLING

- Welded belts
- Injection moulded belts
- Wipers
- Squeegees
- Hinges
- Seismic streamers
- Hydraulic hose burst protection sleeving
1. Greenthane in roof tile conveying.
2. Redthane in ceramics.
3. Emergency "V" Belts
4. Natural cord conveying around bends.
5. Injection moulded or welded belts used in live roller conveyors.
From our modern processing facility and headquarters in Retford, Nottinghamshire, PPL is able to offer full technical consultation, design, prototype development and complete manufacture for the full range of polyurethane products.

In partnership with our customers and systems' suppliers, we can design your tooling and fully test your components before embarking on the production schedules you require.

In addition to REDTHANE® and GREENTHANE®, PPL offers a range of polyurethane elastomers using the following processes:

- INJECTION MOULDING
- MICROCELLULAR POLYURETHANE
- ROLLER COATING
- HOT CASTING
- SPRAY COATING
- EXTRUSION

INDUSTRIES SERVED INCLUDE:

- METALWORKING/PRESSWORK
- BUILDING & CIVIL ENGINEERING
- AGRICULTURAL
- STEEL PROCESSING
- MINING AND QUARRYING
- WATER
- PAPER
- MATERIALS HANDLING
- FOOD PROCESSING
- AUTOMOTIVE
- AEROSPACE
- POWER GENERATION

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