VULCANIZED LAGGING

PPI has complete in-house pulley lagging capabilities. Every step of the pulley manufacturing and lagging process is controlled internally, which assures quality, prompt delivery, and competitive pricing of lagged pulleys. Available in a wide variety of styles and thicknesses, lagging is primarily used to improve traction capacity, resist abrasive conditions, and extend pulley and belt life. The style of lagging required is usually influenced by operating conditions. SBR is the standard lagging material, however neoprene and MSHA are available as well as many other compounds to suit a variety of applications.

FEATURES AND BENEFITS

- In-House lagging facilities - PPI controlled
- 60 durometer is the industry standard for lagging material hardness. It is also available in various durometers, with 45 and 70 being the common alternates.
- SBR standard - neoprene and MSHA optional - others on request
- Available in a wide variety of thicknesses

HERRINGBONE GROOVE LAGGING (HBG) - The style of lagging required is usually influenced by operating conditions. With this style grooving, the points do not meet in the middle. This is normally used in drive pulleys, as water is channeled away from the center of the pulley/belt by the grooves (3/8” minimum thickness).

CHEVRON GROOVE LAGGING (CHE) - Some prefer having the points meet, as done in Chevron. This is normally used in drive pulleys, as water is channeled away from the center of the pulley/belt by the grooves (3/8” minimum thickness).

DIAMOND GROOVE LAGGING (DIA) - Diamond, sometimes referred to as double herringbone, is primarily used for reversing conveyor drive pulleys. It is also often used for spare pulleys so that it can be used in either direction (3/8” minimum thickness).

CIRCUMFERENTIAL GROOVE LAGGING (CIR) - Circumferential Groove Lagging is used on non-drive pulleys for wet applications OR for cold temperatures. It allows the lagging to deflect and keeps material from building up on the lagging extending the temperature range of the lagging (3/8” minimum thickness).

VULCANIZED ENGINEERED CERAMIC LAGGING (VEC) - This patented ceramic lagging starts with hot vulcanized lagging applied to the pulley. We then embed ceramic tiles into the lagging, providing an excellent bond to the pulley with no seams for foreign material to penetrate and cause failures. For use on fabric belting only with PIW of 1000 or less.

CERAMIC LAGGING - Ceramic lagging is a premium lagging where the ceramic tiles are molded into a rubber compound which makes for excellent traction, eliminates slippage, and offers excellent abrasion resistance. Available in 3 thicknesses; 5/8, 3/4 and 1”. For tensions up to 1500 PIW, PPI recommends 5/8” and 3/4”. For tensions over 1500 PIW please contact PPI Engineering Department as 1” thickness may be required.

CRAFT-LAG® REPLACEABLE LAGGING - Craft-Lag is bonded to rigid steel backing, which is then formed to a specific diameter. Craft-Lag can be used with or without retainers and is ideal for mining, crushed stone, sand and gravel, cement, agriculture, food processing, coal mining, power plants, feed and grain, and general industry.
### LAGGING COMPOUND

<table>
<thead>
<tr>
<th>Material</th>
<th>Shore A Duro ±5</th>
<th>Color</th>
<th>Oil &amp; Gas</th>
<th>Animal/Veg. Oils</th>
<th>Alcohols</th>
<th>Alkalis</th>
<th>Acids</th>
<th>Oxygen Solvent</th>
<th>REMARKS</th>
</tr>
</thead>
<tbody>
<tr>
<td>SBR</td>
<td>45,60,70,80,90</td>
<td>BLACK</td>
<td>D</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>C+</td>
<td>B</td>
<td>Low Cost</td>
</tr>
<tr>
<td>NEOPRENE</td>
<td>45*,60*,75</td>
<td>BLACK</td>
<td>C+</td>
<td>B</td>
<td>B+</td>
<td>A</td>
<td>B</td>
<td>D+</td>
<td>Grain &amp; MSHA</td>
</tr>
<tr>
<td>URETHANE</td>
<td>45,60,90</td>
<td>RED</td>
<td>B+</td>
<td>B</td>
<td>C+</td>
<td>D</td>
<td>D+</td>
<td>D</td>
<td>Low Temp</td>
</tr>
<tr>
<td>NITRILE</td>
<td>45,60</td>
<td>BLACK</td>
<td>B+</td>
<td>B</td>
<td>C+</td>
<td>B+</td>
<td>B+</td>
<td>B</td>
<td>Oil Resistant</td>
</tr>
<tr>
<td>EPDM</td>
<td>60-BLK,70-WHT</td>
<td>BLK/WHT</td>
<td>D</td>
<td>B</td>
<td>C</td>
<td>B</td>
<td>C+</td>
<td>B</td>
<td>High Temp</td>
</tr>
<tr>
<td>NATURAL</td>
<td>60,70-BLK,60-WHT</td>
<td>BLK/WHT</td>
<td>D</td>
<td>C</td>
<td>B</td>
<td>C</td>
<td>C+</td>
<td>B</td>
<td></td>
</tr>
<tr>
<td>NEOPRENE(FDA)</td>
<td>60</td>
<td>WHITE</td>
<td>C+</td>
<td>B</td>
<td>B+</td>
<td>A</td>
<td>B+</td>
<td>D</td>
<td>Food Service</td>
</tr>
<tr>
<td>NITRILE(FDA)</td>
<td>50,90</td>
<td>WHITE</td>
<td>B+</td>
<td>B</td>
<td>C+</td>
<td>B+</td>
<td>B</td>
<td>D</td>
<td>Food Service</td>
</tr>
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</table>

A-Excellent, B-Good, C-Fair, D-Poor.

*Requires a stamp for MSHA Approval.

### LAGGING COMPOUND ENVIRONMENTAL RESISTANCE PROPERTIES

<table>
<thead>
<tr>
<th>Material</th>
<th>Shore A Duro ±5</th>
<th>Color</th>
<th>Oxidation</th>
<th>Ozone</th>
<th>Weathering</th>
<th>Sunlight</th>
<th>Water</th>
<th>Flame</th>
<th>Heat</th>
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</thead>
<tbody>
<tr>
<td>SBR</td>
<td>45,60,70,80,90</td>
<td>BLACK</td>
<td>C+</td>
<td>D</td>
<td>C</td>
<td>C</td>
<td>B+</td>
<td>D</td>
<td>C+</td>
</tr>
<tr>
<td>NEOPRENE</td>
<td>45*,60*,75</td>
<td>BLACK</td>
<td>B+</td>
<td>B</td>
<td>B</td>
<td>B+</td>
<td>B</td>
<td>B+*</td>
<td>C+</td>
</tr>
<tr>
<td>URETHANE</td>
<td>45,60,90</td>
<td>RED</td>
<td>B+</td>
<td>A</td>
<td>B+</td>
<td>B+</td>
<td>B</td>
<td>D+</td>
<td>C+</td>
</tr>
<tr>
<td>NITRILE</td>
<td>45,60</td>
<td>BLACK</td>
<td>C+</td>
<td>D</td>
<td>C+</td>
<td>D+</td>
<td>B+</td>
<td>D</td>
<td>B</td>
</tr>
<tr>
<td>EPDM</td>
<td>60-BLK,70-WHT</td>
<td>BLK/WHT</td>
<td>B+</td>
<td>A</td>
<td>A</td>
<td>A</td>
<td>D</td>
<td>D</td>
<td>B+</td>
</tr>
<tr>
<td>NATURAL</td>
<td>60,70-BLK,60-WHT</td>
<td>BLK/WHT</td>
<td>C+</td>
<td>D</td>
<td>C</td>
<td>D+</td>
<td>A</td>
<td>D</td>
<td>C+</td>
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<td>NEOPRENE(FDA)</td>
<td>60</td>
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<td>B+</td>
<td>B</td>
<td>B</td>
<td>B+</td>
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<td>C+</td>
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<tr>
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<td>C+</td>
<td>D</td>
<td>C+</td>
<td>D+</td>
<td>B+</td>
<td>D</td>
<td>B</td>
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### LAGGING COMPOUND PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Material</th>
<th>Shore A Duro ±5</th>
<th>Color</th>
<th>Min Tensile Str. (psi)</th>
<th>Elongation</th>
<th>Max Temp</th>
<th>Min Temp</th>
<th>300% Mod (psi)</th>
<th>Tan Delta</th>
<th>DIN Abrasion</th>
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<tr>
<td>SBR</td>
<td>45</td>
<td>BLACK</td>
<td>1900</td>
<td>600%</td>
<td>225F</td>
<td>-50F</td>
<td>350</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>60</td>
<td></td>
<td>2000</td>
<td>450%</td>
<td>1100</td>
<td>0.36</td>
<td>187</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td></td>
<td>2400</td>
<td>400%</td>
<td>1400</td>
<td></td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>80</td>
<td></td>
<td>2400</td>
<td>400%</td>
<td>1400</td>
<td>0.36</td>
<td>188</td>
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<tr>
<td></td>
<td>90</td>
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<td>N/A</td>
<td>N/A</td>
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</tr>
<tr>
<td>NEOPRENE</td>
<td>45*</td>
<td>BLACK</td>
<td>1500</td>
<td>400%</td>
<td>212F</td>
<td>-50F</td>
<td>450</td>
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<tr>
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<td></td>
<td>2000</td>
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<td>1400</td>
<td>0.36</td>
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<tr>
<td></td>
<td>75</td>
<td></td>
<td>1850</td>
<td>290%</td>
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</tr>
<tr>
<td>URETHANE</td>
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<td>RED</td>
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<td>710%</td>
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<tr>
<td></td>
<td>60</td>
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<td>2770</td>
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</tr>
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<td>70</td>
<td></td>
<td>4700</td>
<td>450%</td>
<td>2100</td>
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<td>130</td>
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<tr>
<td>NITRILE</td>
<td>45</td>
<td>BLACK</td>
<td>1210</td>
<td>840%</td>
<td>250F</td>
<td>-40F</td>
<td>390</td>
<td>--</td>
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<tr>
<td></td>
<td>60</td>
<td></td>
<td>1870</td>
<td>690%</td>
<td>390</td>
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<td>--</td>
</tr>
<tr>
<td>EPDM</td>
<td>60</td>
<td>BLACK</td>
<td>1290</td>
<td>560%</td>
<td>350</td>
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<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>WHITE</td>
<td>1080</td>
<td>520%</td>
<td>500</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>NATURAL</td>
<td>60(BLKorWHT)</td>
<td>--</td>
<td>2750</td>
<td>500%</td>
<td>1070</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td></td>
<td>70(BLK)</td>
<td></td>
<td>1470</td>
<td>330%</td>
<td>1310</td>
<td>--</td>
<td>--</td>
<td>--</td>
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</tr>
<tr>
<td>NEOPRENE(FDA)</td>
<td>60</td>
<td>WHITE</td>
<td>1200</td>
<td>600%</td>
<td>212F</td>
<td>-50F</td>
<td>375</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>NITRILE(FDA)</td>
<td>50</td>
<td>WHITE</td>
<td>--</td>
<td>--</td>
<td>250F</td>
<td>-40F</td>
<td>--</td>
<td>--</td>
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</tr>
</tbody>
</table>

SBR - Styrene Butadiene Copolymer  
Neoprene - Chloroprene Polymer  
Nitrile - Butadiene Acrylonitrile Copolymer  
EPDM - Ethylene ProPylene Copolymer & Terpolymer  
NATURAL - Poly Isoprene  
Urethane - Urethane Polymer

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