PPI RELEASE FILMS

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A Brand Of Quality To Rely On...
Valentia Industries Limited, a company within the PPI Group, is a major specialised producer of release films. The company manufactures both single and double-sided siliconised polyester and polypropylene films, ranging from 0.012 mm to 0.190 mm thickness and from 6 mm to 1350 mm in width.

Valentia Industries Ltd has developed a highly sophisticated coating system that ensures the production of release films with the lowest possible migration. This outstanding feature coupled with the excellent mechanical and chemical properties of the base films make PPI release films the ideal product for industrial applications that demand interliners, covering and protection films and substrates.

The outstanding features of PPI release films are as follows:

• The virtual absence of migration i.e. the danger of transfer of the silicone from the PPI release film to the material to which it is applied is eliminated.

• The very close tolerance in the coating weight that is available on one or both sides of the film if required.

• The excellent mechanical strength and chemical resistance of the base films themselves.

• The very high stability when exposed to extreme weather conditions.

• The temperature resistance of PPI release films based on polyester which will withstand temperatures of up to 130°C for prolonged periods and elevated temperatures of up to 200°C for one hour.

• Their extremely long shelf life

• The range of release characteristics that can be afforded and which make PPI release films suitable for a very wide range of industrial applications

• The wide range of film thicknesses, roll widths and formats such as die-cut pieces and sheets which can be supplied.

• The wide range of film types (polyester; transparent and white, PVC, polypropylene, etc.) can be coated with customer specific release layers.

These outstanding features of PPI release films have been tested and approved by a wide variety of industries worldwide and have led to a continuing increase in the range and diversity of applications for which they are used.

The following detailed information on the various PPI release films available should assist you in selecting the correct film for your particular application.
PPI 0501
Silicone Coated Polyester (PET) Release Film

The PPI 0501 release film is based on a polyester film that has been treated with a premium, migration-free silicone release system on one or both sides. It is widely used as a release liner for an extensive range of adhesives, waxes and rubber materials, in a broad spectrum of industry applications.

Applications:
- Adhesives: Interliner used for adhesive tape manufacturing.
- Electrical: Interliner for pressing and moulding of pre-preg insulated conductor coils.
- Plastics: Interliner for the production of sheets from casting compounds.
- Roofing Felt: Interliner, siliconised on both sides, for packing of tacky waxes and resins.
- Bitumen: Interliner, siliconised on both sides, for packing of tacky waxes and resins.
- Chemical: Interliner to prevent blocking (self-bonding) of rubber sheeting.
- Electronics: Release film used in the lay-up of multi-layer PCB’s.

PPI SP-914
Solvent/Abrasion Resistant Silicone Coated (PET) Film

As part of our process of continuous product development and tailoring our product to meet customer needs, PPI is able to extend this product range to include, PPI SP-914. This liner has an optimum balance of properties, including excellent release properties, ideal anchorage of silicone to film plus superior solvent and abrasion resistance. Available in single and double sided format.

Applications:
- Carrier liner for direct coating of solvent based adhesives.
- Interliner for silicone adhesive based products during coating and die-cutting applications.

<table>
<thead>
<tr>
<th>PPI TYPE</th>
<th>PPI 0501</th>
<th>PPI SP-914</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Material</td>
<td>Polyester Film</td>
<td>Polyester Film</td>
</tr>
<tr>
<td>Thickness</td>
<td>0.023 mm, 0.036 mm, 0.050 mm</td>
<td>0.023 mm, 0.036 mm, 0.050 mm</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>40 N/cm, 58 N/cm, 80 N/cm</td>
<td>40 N/cm, 58 N/cm, 80 N/cm</td>
</tr>
<tr>
<td>Release Force</td>
<td>5-20 cN/25 mm</td>
<td>5-20 cN/25 mm</td>
</tr>
<tr>
<td>Elongation</td>
<td>120 %</td>
<td>120 %</td>
</tr>
<tr>
<td>Colour</td>
<td>Transparent</td>
<td>Transparent</td>
</tr>
</tbody>
</table>

** Other thicknesses available on request **
PPI SP-916
Fluorosilicone Coated Polyester Release Film

PPI SP-916 release film is based on polyester film coated on one or both sides with a specially formulated fluorosilicone release coating. This unique liner provides excellent easy release from all types of silicone based adhesives and rubbers. Previously, various forms of liners have been used as releases for silicone based products and have had varying degrees of success. PPI SP-916 has proved itself to be the market leader in terms of offering the easiest / lowest release force for silicone based adhesives while possessing superior long term stability in comparison to all other liners.

Applications:

- **Labelstock/Die-cutting Industry:** Interliner for all silicone adhesive based tapes.
- **Rubber Industry:** Interliner for all extruded or coated silicone rubber sheeting.

PPI 0701
Silicone Coated Polypropylene Release Film

PPI 0701 is a robust mono-axially orientated polypropylene (MOPP) film coated on one or both sides with a premium silicone release system. This product provides improved conformability / drape when compared to the more rigid liners like paper or polyester, yet it has ideal mechanical strength. As a result PPI 0701 is recommended for those demanding applications where many weaker liners would tend to be damaged or destroyed, for example during the production of heavy weight metal foil based tapes.

Applications:

- **Die-cutting:** A tough, conformable interliner ideally suited to precision, high impact, die-cutting applications.
- **Metal Foil:** Interliner for heavy metal foil based adhesive tapes.

<table>
<thead>
<tr>
<th><strong>PPI TYPE</strong></th>
<th><strong>PPI SP-916</strong></th>
<th><strong>PPI 0701</strong></th>
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</thead>
<tbody>
<tr>
<td>Base Material</td>
<td>Polyester Film</td>
<td>Polypropylene Film</td>
</tr>
<tr>
<td>Thickness</td>
<td>0.023 mm, 0.050 mm</td>
<td>0.050 mm</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>40 N/cm, 80 N/cm</td>
<td>125 N/cm</td>
</tr>
<tr>
<td>Release Force</td>
<td>5-20 cN/25 mm</td>
<td>5-20 cN/25 mm</td>
</tr>
<tr>
<td>Elongation</td>
<td>120 %</td>
<td>30-40 %</td>
</tr>
<tr>
<td>Colour</td>
<td>Transparent</td>
<td>Transparent</td>
</tr>
</tbody>
</table>
**PPI 0505**
Silicone Coated Metallised Polyester Release Film

PPI 0505 is based on metallised polyester film coated on one or both sides with a silicone release coating. The release coating can also be formulated to produce tight release and differential release films if required.

**Applications:**

• **Die-cutting:** The white or silver colouring offers a distinct contrast, ideal for automated die-cutting recognition systems. Highly visible interliners used for the production of die-cut parts.

<table>
<thead>
<tr>
<th>PPI TYPE</th>
<th>PPI 0505</th>
<th>PPI SP-2247</th>
<th>PPI SP-2369</th>
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</thead>
<tbody>
<tr>
<td>Base Material</td>
<td>Metalised Polyester Film</td>
<td>Polyester Film</td>
<td>High Density Polyethylene</td>
</tr>
<tr>
<td>Thickness</td>
<td>0.023 mm</td>
<td>0.075 mm</td>
<td>0.075 mm</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>40 N/cm</td>
<td>100 N/cm</td>
<td>30 N/cm</td>
</tr>
<tr>
<td>Release Force</td>
<td>5-20 cN/25 mm</td>
<td>5-20 cN/25 mm</td>
<td>5-10 cN/25mm</td>
</tr>
<tr>
<td>Elongation</td>
<td>120%</td>
<td>120%</td>
<td>500%</td>
</tr>
<tr>
<td>Colour</td>
<td>Transparent</td>
<td>White</td>
<td>Translucent</td>
</tr>
</tbody>
</table>

**PPI SP-2247**
Silicone Coated White Polyester Release Film

Based on a white opaque polyester film coated on one or both sides with a silicone release coating. PPI SP-2247 is suitable for die cutting gaskets for mobile phones where high colour contrast is required.

**PPI SP-2369**
Silicone Coated High Density Polyethylene Release Film (HDPE)

SP-2369 is based on a High Density Polyethylene (HDPE) which is coated on one side with a very stable silicone release coat which is particularly suited to hot melt adhesives and extrusion coated products. The reverse side of the product is corona treated and can therefore be printed if required. The HDPE product has high elongation making it suitable to applications where the liner will be thermoformed or during processing.

**Other thicknesses available on request**
PPI SP-282 - Non-Silicone Release Coated Polyester

Polyester film coated on one or both sides with a special non-silicone release coating. This material is defined as a high release force liner, typically suitable as a carrier liner for low tack/low adhesion tapes.

**Applications:**

- Specialist liner for die-cutting of low tack tapes. Interliner used for the production of die-cut parts.

<table>
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<tr>
<th><strong>PPI TYPE</strong></th>
<th><strong>PPI 0505</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Material</td>
<td>Polyester Film</td>
</tr>
<tr>
<td>Thickness</td>
<td>0.050 mm, 0.100 mm</td>
</tr>
<tr>
<td>Tensile Strength</td>
<td>40 N/cm, 140 N/cm</td>
</tr>
<tr>
<td>Release Force</td>
<td>5-20 cN/25 mm</td>
</tr>
<tr>
<td>Elongation</td>
<td>120%</td>
</tr>
<tr>
<td>Colour</td>
<td>Transparent</td>
</tr>
</tbody>
</table>

**Other thicknesses available on request**

PPI Differential & High Release Silicone Coated Polyester Films

For some applications differential release or high release force interliners are required. PPI has the capability to tailor the release characteristics of an interliner to a customers’ specific requirements and is willing to assist in product testing for our interested customers.

- **RD-270** - Liners with a specific level of tight release.
- **SP-996** - Differential release liner (one side tight, one side easy).

Film thicknesses available: 0.023mm, 0.036mm, 0.050 mm.

**This comprehensive product range and constant commitment to continuous improvement has ensured that PPI is to the forefront in the field of release liner developments.**

Delivery Specification:

- **Standard Widths:** 6 mm to 1050 mm
- **Special Widths:** 1100 mm to 1350 mm*
- **Roll Lengths:** 100 M to 2,000 M
- **Core:** 3" Cardboard or Plastic.

*Subject to availability of film and minimum order requirements.

PPI release films can also be supplied in sheet form and die-cut pieces.

Special release films may be produced to customer’s specifications.

Other polyester thicknesses up to 0.190 mm may be supplied subject to availability of film and minimum order requirements.

All technical data are based on average values.

Test methods are based on international standards e.g. VDE, DIN, EN, BSS, IEC, ASTM, UL, MIL, AFERA and CEN.
Our group of companies also offers you:

**PPI Adhesive Products Ltd.**

PPI Self-adhesive tapes
- For the electrical and electronic industries
- For the audio/video industries (splicing tapes, cleaning tapes, etc.)
- For use in printed circuit board assembly
- For shielding and winding transformer applications
- For a wide range of industrial and speciality applications (floor covering manufacture, masking tapes, etc.)

**Technical Adhesive Products Ltd. (T.A.P.)**

Producer of precision die-cut adhesive components for electrical, electronic and general industrial applications.
T.A.P. can offer experienced technical know how on all aspects of product die-cutting and design.

**Waterford Research & Development Ltd.**

Continuously develops self-adhesive products for our own group and for our interested customers. R&D develops new production techniques and market know-how on all aspects of adhesive products.

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**Important Note To Purchasers**

All statements, technical data and recommendations contained herein are based on tests we believe to be reliable, but the accuracy or completeness is not guaranteed, and the following is made in lieu of all warranties, express or implied.

Seller’s and manufacturer’s only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use or the inability to use the product. Before using, users shall determine the suitability of the product for their intended use, and users assume all risk and liability whatsoever in connection therewith.

No statement or recommendation not contained herein shall have any force or effect unless embodied in a written agreement signed by authorised officers of seller and manufacturer.
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