

### Laminates

| Textile or Film                          | Film Substrate<br>(current products) | Film Thickness<br>inches (mm)                     | Common<br>Constructions <sup>2</sup> | Notes   |
|--|--------------------------------------|---|--------------------------------------|---|
| Non-woven (Polyester, PP, rayon, blends) | PVC, PE, PP, EVA, TPU                | > 0.004 (0.102)                                   | AB, ABA, ABA , BAB                   | Soft Feel, Basis weight from 0.7-3.6 oz/yd <sup>2</sup> (23.7-122 gm/m <sup>2</sup> ) |
| Unbroken Loop (Nylon, Polyester)         | PVC, EVA, TPU                        | > 0.009 (0.229)                                   | AB                                   | Basis weights from 2-6 oz/yd <sup>2</sup> (67.8-203 gm/m <sup>2</sup> )               |
| Brushed Polyester                        | PVC, EVA, TPU                        | > 0.009 (0.229)                                   | AB                                   | Soft feel knit material   |
| Woven or Weft Insert Scrim               | PVC, EVA, TPU                        | > 0.005 (0.127) per side<br>> 0.010 (0.254) total | ABA, ABA <sub>1</sub>                | Dimensional Stability, Strength   |
| Poly/Cotton Woven                        | PVC                                  | >0.006 (0.152)                                    | AB                                   | Excellent strength  |
| Film to Film                             | Most Wiman Films                     | > 0.005 (0.127) per side<br>> 0.010 (0.254) total | AA <sub>1</sub> , AA <sub>1</sub> A  | Dual Film Properties  |

<sup>1</sup> This Line Card is indicative of commercial products. Please call Wiman to discuss options for materials not listed.

<sup>2</sup> A : Polymer Film, A<sub>1</sub> : Alternate Polymer Film, B : Textile  
Wiman will also toll laminate your films and fabrics.

### Films

| Thermoplastic Polymer                 | Common Name               | Thickness Range (mm) | Max Width <sup>2</sup> (mm) | Clear / Opaque | Rigid / Flexible | Sealing Methods      | Value Added Options Available      |                 |                                 |             |                        |
|---------------------------------------|---------------------------|----------------------|-----------------------------|----------------|------------------|----------------------|------------------------------------|-----------------|---------------------------------|-------------|------------------------|
|                                       |                           |                      |                             |                |                  |                      | Weatherable/Enhanced UV Protection | Flame Retardant | Static Dissipative / Conductive | Alloys      | Laminates <sup>3</sup> |
| Flexible PVC                          | PVC                       | 0.127 to 1.524       | 1524                        | C/O            | F                | RF, Heat, Ultrasonic | U                                  | ✓               | C                               | TPU         | NW, UBL, BP, S, F      |
| Flexible PVC                          | PVC                       | 1.549 to 4.750       | 1219                        | C/O            | F                | RF, Heat, Ultrasonic | U                                  | ✓               | C                               | TPU         | NW, UBL, BP, S, F      |
| Rigid PVC                             | PVC                       | 0.025 to 0.406       | 1575                        | C/O            | R                | RF, Heat, Ultrasonic | U                                  | ✓               | C                               | ABS         | -                      |
| Polypropylene                         | PP Homopolymer/ Copolymer | 0.058 to 0.889       | 1524                        | C/O            | F/R              | Heat, Ultrasonic     | U                                  | ✓               | S/C                             | EVA, PE     | NW, UBL, BP, S, F      |
| Polyethylene                          | LDPE, LLDPE, HDPE         | 0.102 to 0.889       | 1524                        | C/O            | F/R              | Heat, Ultrasonic     | U                                  | ✓               | S/C                             | EVA, PP     | NW, UBL, BP, S, F      |
| Olefin Elastomers                     | TPO, POE, Metallocene     | 0.102 to 0.889       | 1524                        | C/O            | F                | Heat, Ultrasonic     | U                                  | ✓               | -                               | EVA, PP, PE | NW, UBL, BP, S, F      |
| Ethylene Vinyl Acetate                | EVA                       | 0.102 to 0.889       | 1524                        | C/O            | F                | RF, Heat, Ultrasonic | U                                  | ✓               | -                               | PP, PE      | NW, UBL, BP, S, F      |
| Polyurethane (Ether or Ester)         | TPU                       | 0.152 to 1.542       | 1524                        | C/O            | F/R              | RF, Heat, Ultrasonic | -                                  | ✓               | S/C                             | PVC         | NW, UBL, BP, S, F      |
| Polyurethane (Ether or Ester)         | TPU                       | 1.549 to 3.175       | 1219                        | C/O            | F                | RF, Heat, Ultrasonic | -                                  | ✓               | S/C                             | PVC         | NW, UBL, BP, S, F      |
| Polyurethane (Aliphatic) <sup>4</sup> | TPU                       | 0.076 to 0.305       | 1422                        | C              | F                | RF, Heat, Ultrasonic | W                                  | -               | -                               | PMMA        | -                      |
| Acrylic (Impact Modified)             | PMMA                      | 0.038 to 0.381       | 1574                        | C/O            | R                | Heat, Ultrasonic     | W                                  | ✓               | -                               | -           | -                      |
| Acrylic (UV Screening)                | PMMA                      | 0.076 to 0.381       | 1574                        | C/O            | R                | Heat, Ultrasonic     | W                                  | -               | -                               | -           | -                      |
| Acrylonitrile Butadiene Styrene       | ABS                       | 0.051 to 0.762       | 1524                        | C/O            | R                | Heat, Ultrasonic     | -                                  | ✓               | S                               | PVC         | -                      |
| Bio-based (poly lactic acid)          | PLA                       | 0.051 to 0.762       | 1524                        | C/O            | R                | Heat, Ultrasonic     | -                                  | -               | -                               | -           | -                      |
| Co-polyester                          | PETG, PCTG                | 0.051 to 0.406       | 1574                        | C/O            | R                | RF, Heat, Ultrasonic | U                                  | ✓               | -                               | -           | F                      |
| Polyester Elastomer                   | COPE                      | 0.051 to 0.406       | 1574                        | C/O            | F/R              | Heat, Ultrasonic     | -                                  | -               | -                               | -           | -                      |
| Polycarbonate                         | PC                        | 0.051 to 0.406       | 1574                        | C/O            | R                | Heat, Ultrasonic     | U                                  | ✓               | S, C                            | PBT         | -                      |

<sup>1</sup> This Line Card is indicative of commercial products. Please call Wiman to discuss options for materials not listed.

<sup>2</sup> Actual max width may be less for some embossment and thickness combinations. Depending on material, thickness and laminate structure, slitting may be available down to 1" widths.

<sup>3</sup> Laminate types: Non-woven (NW), Unbroken Loop (UBL), Brushed Polyester (BP), Scrim (S), Film to Film (F)

<sup>4</sup> Only available with a matte surface finish and on a coated PET release liner.

Wiman will also toll manufacture film from your formulations. Copyright 2018 Wiman Corporation, 04/18