# FILM SELECTOR GUIDE

INNOVATIVE SOLUTIONS for INDUSTRIAL PRODUCTIONS by

PROCHIMIR

TECHNICAL FILMS

# THERMOBONDING SELECTOR GUIDE

| OUR FILMS | YOUR MATERIALS: TEXTILES: Synthetic fibers | TEXTILES: Natural fibers | TEXTILES: Mineral fibers | TEXTILES: Leather | WOOD | FOAMS: PE | FOAMS: PU | PLASTICS: PE | PLASTICS: PP | PLASTICS: ABS | PLASTICS: PS | PLASTICS: PET | PLASTICS: PVC | ELASTO-MERS | METALS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EVA | ◪ | □ | ◪ | ◪ | ◪ | □ | ◪ | □ | ◪ | □ | ◪ | ◪ | □ | □ | ◪ |
| PE | ◪ | ◪ | ■ | □ | ■ | ◪ | ◪ | ■ | □ | □ | ◪ | ◪ | □ | ■ | ■ |
| PP | ◪ | □ | ◪ | | | □ | □ | □ | □ | | □ | □ | | ◪ | □ |
| TPU | ■ | ■ | ◪ | ■ | ◪ | ◪ | ■ | | | ◪ | □ | □ | ■ | ◪ | □ |
| CoPA | □ | □ | □ | ◪ | ◪ | □ | □ | | | □ | □ | □ | □ | ◪ | □ |
| CoPES | ■ | ■ | ■ | ◪ | ◪ | □ | ◪ | | | □ | □ | ◪ | ■ | ◪ | □ |

■ Very good adhesion ◪ Good adhesion □ To be tested

The values contained in this document result from trials and measures done by our laboratory in specific conditions controlled by our R&D.
They are given as an indication. We propose you to test those characteristics more accurately for your own applications and uses.

## BARRIER FILMS PROPERTIES

- Waterproof
- Industrial fluids
- Physical liquids
- Light (Black-Out)
- Hydrolysis resistance
- UV resistance
- Plasticizers resistance
- PU foam injection

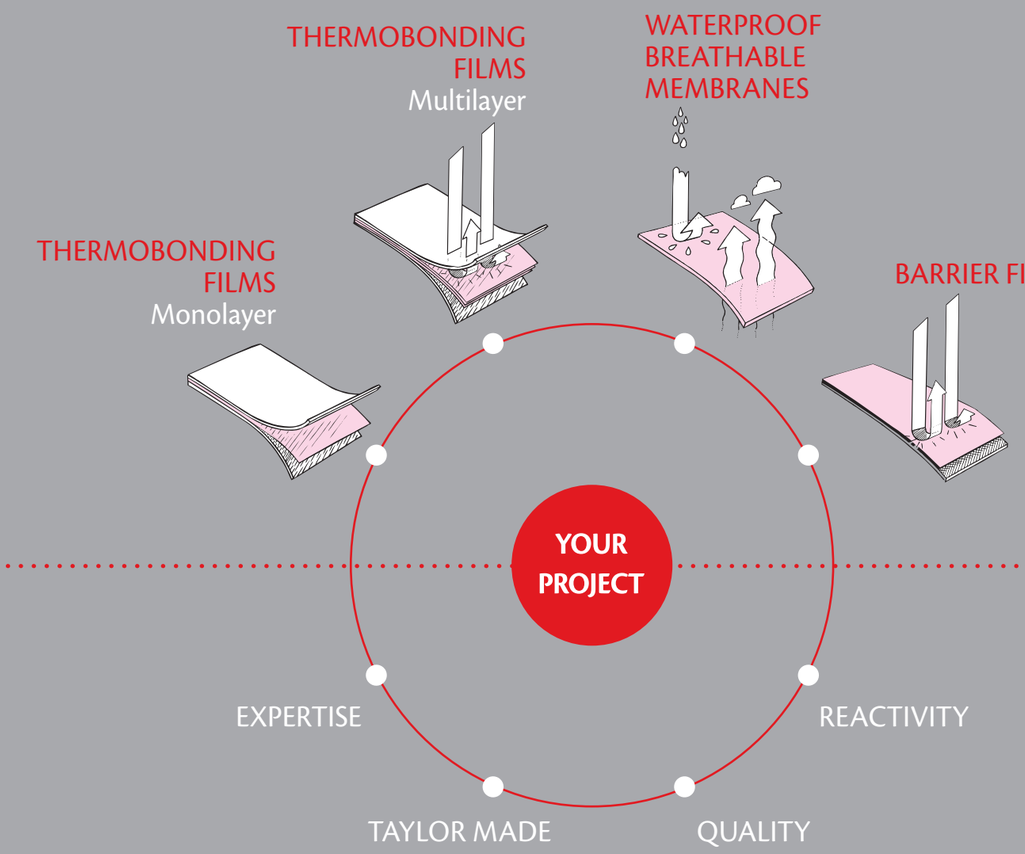
## BREATHABLE MEMBRANES PROPERTIES

- Soft
- Flexible
- Breathable
- Waterproof
- Windproof
- Hydrophilic
- Skin friendly

## OPTIONS

Corona Treatment, Colors, Micro-perforation, Flame Retardant films, Widths up to 3000 mm,
Roll length from 500 lm to 4000 lm

# A wide range of films




**R&D**
Our mission through bonding and extrusion trials is to achieve the best and most cost effective solutions for our customers and their applications.

**Production**
Dedicated and skilled teams and state of the art machinery assure high and permanent quality production capacity. This not only secures the supply chain of the customers, but enables to react quickly to emergency cases.

**Quality**
More than 25 years of experience in the production of technical films as well as the Iso certification ensure our customers of receiving quality products.

## THERMOBONDING FILMS

| | POLYOLEFINS | | | | | TPU | | | | | CoPA - CoPES | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Films | TC 1027 | TC 1007 | TC 1500 | TC 1700 | TC 3070 | TC 5002 | TC 5006 | TC 5009 | TC 5011 | TC 5017 | TC 203 | TC 255 | TC 420 |
| Nature | EVA | EVA | PE | PE | PP | TPU | TPU | TPU | TPU | TPU | CoPA | CoPA | CoPES |
| Melting range (°C) | 65-85 | 90-95 | 100-105 | 120-130 | 130-140 | 40-60 | 70-85 | 100-105 | 115-125 | 145-160 | 105-115 | 115-120 | 110-125 |
| Fluidity | High | Medium | Medium | Low | Medium | Low | Medium | Medium | Medium | Medium | High | High | High |
| Washing resistance (°C) | - | 60 | 60 | 60 | 60 | - | 30 | 30 | 60 | 60 | 60 | - | 60 |
| Dry cleaning resistance | - | - | - | - | - | - | - | + | + | + | + | - | + |
| Plasticizers resistance | - | - | - | - | - | + | - | - | - | - | + | - | + |
| Hydrolysis resistance | + | + | + | + | + | - | - | - | - | - | + | - | + |
| Minimum thickness (µm) | 25 | 25 | 25 | 25 | 30 | 15 | 15 | 15 | 15 | 15 | 15 | 15 | 15 |
| Structure* | A | A | A | A | A | A/S | A/S | A/S | A - A/S | A - A/S | A/S | A - A/S | A - A/S |
| Comments | High fluidity EVA for textile applications | EVA for foam and metal applications | Versatile PE film with large bonding range | Excellent adhesion on bituminous heavy layers, metals and elastomers | Special PP bonding film | Excellent adhesion on flexible PVC | Low melting TPU adhesive for delicate substrates | Versatile TPU bonding film | Excellent bonding on PU foams and textiles | Excellent bonding on PU foams and textiles | Strong adhesive, barrier to PVC plasticizers | Steam activable CoPA | Strong CoPES adhesive |

* A: Adhesive B: Barrier S: PE Carrier

## ADHESIVE + BARRIER FILMS

| | POLYOLEFINS | | | | | | | TPU | | | | CoPA | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Films | TC 1027 CX 00 | TC 1500 CX 01 | TC 1600 CX 80 | TC 1600 CX 92 | TC 3300 CX 18 | TC 3300 CX 70 | TC 5125 CX 18 | TC 5025 CX 03 | TC 5020 CX 11 | TC 5563 CX 11 | TC 4070 CX 20 | TC 203 CX 176 | TC 5526 CX 205 |
| Nature | EVA/PE | PE/PE | PE/CoPA | PE/PP | EVA/PP | PP/PP | EVA/TPU | TPU/TPU | TPU/TPU | TPU/TPU | TPU/CoPES | CoPA/PE | CoPA/TPU |
| Adhesive melting range (°C) | 75-85 | 100-105 | 100-120 | 105-110 | 80-90 | 130-140 | 80-90 | 70-85 | 115-125 | 115-125 | 145-155 | 115-130 | 120-130 |
| Barrier melting range (°C) | 120-130 | 120-130 | 210-220 | 160-170 | 160-170 | 160-170 | 160-175 | 160-180 | 145-155 | 180-185 | 215-225 | 110-120 | 165-170 |
| Fluidity (adhesive layer) | High | Medium | Low | Low | Medium | Medium | Medium | Medium | Medium | Medium | Medium | High/Low | High |
| Washing resistance (°C) | - | 60 | 60 | 60 | 60 | 60 | 60 | 30 | 60 | 60 | 60 | 60 | 60 |
| Dry cleaning resistance | - | - | - | - | - | - | - | - | + | + | + | - | + |
| Plasticizers resistance | - | - | - | - | - | - | - | - | - | - | - | + | + |
| Hydrolysis resistance | + | + | + | + | + | + | - | - | - | - | - | + | + |
| Minimum thickness (µm) | 25 | 25 | 60 | 30 | 30 | 30 | 25 | 20 | 40 | 20 | 35 | 25 | 25 |
| Structure* | A/B - A/B/A | A/B - A/B/A | A/B/A | A/B - A/B/A | A/B | A/B - A/B/A | A/B - A/B/A | A/B - A/B/S | A/B/A | A/B | A/B - A/B/A | A/A | A/B |
| Comments | Low melting EVA film with PE barrier | General purpose multilayer PE film | High temperature multilayer film for thermocompression | Multilayer film with good elongation properties | Bilayer film with good resistance to industrial fluids | High temperature multilayer film with good resistance to industrial fluids | Strong EVA adhesive with high temperature TPU barrier | Bilayer TPU film for foam covering | Trilayer TPU film | Bilayer TPU film with high chemical resistant Ether barrier | TPU adhesive with a stable CoPES barrier up to 200°C | Specific film to bond ABS / PC and PA on other suvbstrates | Bilayer film combining a strong adhesive and a high chemical resistant barrier |

* A: Adhesive B: Barrier S: PE Carrier

## BARRIER FILMS

| | POLYOLEFINS | | TPU Ester | | | | TPU Ether | | CoPES | CoPA |
|---|---|---|---|---|---|---|---|---|---|---|
| Films | TC 1260 | TC 3300 | TC 5015 | TC 5018 | TC 5025 | TC 5030 | TC 5530 | TC 5562 | TC 4070 | TC 206 |
| Nature | PE | PP | TPU | TPU | TPU | TPU | TPU | TPU | CoPES | CoPA |
| Melting range (°C) | 110-115 | 160-165 | 140-160 | 150-160 | 160-175 | 170-190 | 150-170 | 180-185 | 215-225 | 110-120 |
| Hydrolysis resistance | + | + | - | - | - | - | + | + | + | + |
| UV resistance | + | + | - | - | - | - | - | + | - | + |
| Minimum thickness (µm) | 25 | 30 | 15 | 15 | 15 | 15 | 15 | 15 | 20 | 15 |
| Structure* | B | B | B - B/S | B - B/S | B - B/S | B - B/S | B - B/S | B - B/S | B | B - B/S |
| Comments | PE barrier | High elongation PP barrier | Crystal clear TPU barrier with high mechanical properties | Recommended film for foam injection | Recommended film for flame lamination | Elastic TPU film | HF Weldable TPU film for inflates | UV stabilized TPU film | Very high temperature resistant barrier | Barrier to PVC plasticizers |

* A: Adhesive B: Barrier S: PE Carrier

## MEMBRANES

| | TPU | | | CoPA - PES | | | | PES |
|---|---|---|---|---|---|---|---|---|
| Films | AA 5360 | AA 5364 | IRT3 | IR Type A | IR Type N 2.0 | IR Type N 5.0 | IR Type E | B & B |
| Nature | TPU | TPU | TPU | PEBA | PES | PES | PES | PES |
| Melting range (°C) | 160-170 | 160-170 | 145-160 | 150-160 | 180-190 | 190-200 | 210-220 | 175-185 |
| MVTR (g/m²/24h) | < 1 000 | < 1 000 | > 3 000 | > 3 500 | > 3 500 | > 3 000 | > 3 000 | > 3 000 |
| RET | N.A. | N.A. | 3.3 | N.A. | 2 | 5 | 8.5 | 0,8 // 7 |
| Hydrostatic Head (mmH2O) | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 | 10,000 |
| Minimum thickness (µm) | 15 | 15 | 12 | 15 | 12 | 12 | 12 | 15 |
| Structure* | B - B/S | B - B/S | B - B/S | B - B/S | B - B/S | B - B/S | B - B/S | B & B/S - B & B |
| Comments | Dedicated to mattress protection | Oekotex® dedicated membrane for mattress protection | High breathable membrane | Food and drugs application | High performance and soft PES membrane | High temperature resistant PES membrane | Dedicated breathable PES membrane for sublimation | Two sides effect membrane, especially performant in rainy conditions |

* A: Adhesive B: Barrier S: PE Carrier
** Intern method ASTM E96 B like (upright cup)

PROCHIMIR TECHNICAL FILMS

Versatile production & Production capacity
SUPPLY SECURITY

Efficient R&D & Customized development
COST EFFECTIVE PRODUCTS

Iso 9001v2008 & 25 years of experience
QUALITY

QUALITY SYSTEM CERTIFICATION DNV·GL ISO 9001

PARIS

PROCHIMIR

PROCHIMIR
TECHNICAL FILMS

34 rue René Truhaut - Z.I. de Montifaut - F-85700 Pouzauges
Tel. + 33 2 51 57 05 51 - Fax + 33 2 51 57 07 98

200E Big Beaver Rd - TROY, MI 48083 - USA
Office Tel. (248) 457 4538

email: films@prochimir.fr
www.prochimir.com