This Presentation includes below sections:

1. Printed and Laminated Product Line
2. Industrial Product Line
3. Paper Bags Product Brochure
4. Specialty PE films Product Brochure
• Printing and Lamination high-tech products
• Extrusion Coating Products (printed and non-printed)
• Cold Seal and Other Coating applied products
• Bags & Pouches
• Industrial Products
At a glance & key Characteristics

• Founded in 2011

• Having very professional, high experienced and high educated team, well known by the customers and manufacturers

• Exports to more than 50 customers at 5 continents.

• High&consistent Quality

• Partnership with very professional companies

• Always behind its service and products.

• Meeting with the quality expectation of each individual customer with competitive prices and giving high quality service to provide long-term business relations by its experienced team are the key characteristics of the TiePlast
Printed Products

- Instant Drink, Milk Powder, Soup, Spices
- Pasta, Couscous and Legumes
- Salad Dressings, Sauces
- Snack, Dry Fruits and Nuts, chips
- Ice Cream

- Meat, Poultry and Dairy, Frozen & chilled food
- Confectionery
- Mix-Pap and Lidding Structures
- Wet Wipe Structures
- Stand up & Flat-Bottom Pouches
- Flour Bags
- Chicken bags
• Instant Drink, Milk Powder, Soup, Spices:

• Producing this with different packaging design as below:

- Pet/Alu/Pe Printed Laminates
- PET/PE Laminates
- Paper/ALU/PE Laminates
Printed Products

• Pasta, Couscous, Legumes Packaging:

• Producing this with different packaging design as below:
  - OPP/CPP Printed Laminates
  - OPP/PE Printed Laminates
  - PET/PE Laminates
Printed Products

- Salad Dressings, Sauces:
  - Producing this with different packaging design as below:
    - OPP/OPP Printed Laminates
    - PET/ALU/PE Printed Laminates
    - Paper/ALU/PE Printed Laminates
Printed Products

• Snack, Dry Fruits and Nuts, chips:
  - OPP/OPP Printed Laminates
  - PET/ALU/PE Printed Laminates
  - Paper/ALU/PE Printed Laminates
  - OPP/METOPP Printed Laminates
Printed Products

• Ice Cream :

• Producing this with different packaging design as below :

- Met pearlized OPP surface printed laminates
- Solid White OPP Printed Laminates
- ALU/Paper/PE Ice-Cream Cones

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Printed Products

- Meat, Poultry and Dairy, Frozen Foods, chilled food;
- PET/PE printed laminates
- PET/EVOH/PE printed Laminates
- OPP/PE printed Laminates
Printed Products

- Confectionery;
  - Twistable PET printed
  - Twistable PET printed & partially laminated
  - Paper included structures
  - Flow pack confectionery packaging
  - Specialty odour and aroma barrier structures
Printed Products

Confectionery:

- OPP/OPP, OPP/CPP laminates
- Twistable PET printed & partially laminated
- Paper included structures
- Flow pack confectionery packaging
- Specialty odour and aroma barrier structures
Printed Products

• Mix-pap & Lidding Printed Structures;
  - Paper /METPET peelable to APET, PP and PVC
  - ALU/Peelable coating to APET, PP and PVC
  - PET/ALU Peelable to APET, PP and PVC
  - ALU/PET peelable to APET, PP and PVC
Printed Products

- Wet Wipes Printed Structures;
  - PET/PE printed
  - Soft Touch Matt PET/PE printed
  - PET/ALU/PE Printed
  - PET/METPET/PE Printed
  - PET/Metallized CPP Printed
  - Partial Matt printed structures
Printed Products

- Pouches & Bags;
  - Stand-Up Pouches
  - Flat-bottom Pouches
  - Flour Bags (1-2-5-10 kg)
  - Cement Bags (5-10-20-50 kg)
**Printed Products**

- Pouches & Bags;
  - Flour Bags (1-2-5-10 kg)
  - Cement Bags (5-10-20-50 kg)
Printed Products

- Chicken Bags & Bread Bags;
- OPP Structures
- CPP Structures
- PE Structures
INDUSTRIAL PRODUCTS

- PE Films
- CPP Films
- PET Films
- Extrusion Coating Products
- Flexible Products for Insulation
- Lamination Adhesives
- Cold Seal and Other Coating Chemicals
- Bags & Pouches
- Industrial Products
Summarize of Product Portfolio:

**PE Films**
- TP101-TP108: PE film for multi-purpose application
- TP102: PE film for frozen food application
- TP105: PE film for easy-tear application
- TP106: PE film for Bread Bag application
- TP107: PE film for Chicken Bag application
- TP109: Sanitary and Hygiene Application

**Extrusion Coated Products**
- TP301: Kraft / PE Structures
- TP302: 1SC Paper / PE Structures
- TP303: 1 SC Paper/PE/ALU/PE Structures
- TP304: 1 SC Paper/PE/ALU/Surlynn Structures
- TP305: NC Primer/ALU/PE/Paper/PE Structures
- TP306: PE/ALU/PE Structures
- TP307: NC Primer/ALU/PE or ALU/PE Structures
- TP308: Window Paper Rolls
- TP309: Metalized PET/PE for insulation industry
- TP310: Pouches & Bags

**Lamination Adhesives**

![Polfoll Logo]

Laminasyon Tutkallari / Flexible Lamination Solutions

![TiePlast Logo]
Summarize of Product Portfolio:

CPP Films
- TP401 : CPP film for Lamination
- TP402 : CPP film for Bread Bags
- TP403 : CPP film for sterilization process
- TP404 : CPP film for Lamination with AF property
- TP405 : CPP film for frozen food applicaition
- TP406 : Biodegradable CPP film
- TP407 : Sanitary and Hygiene Application
- TP408 : Twistable CPP films

PVC and PET sheet extrusion for thermoformable rigid bottom cups
- TP501 : Rigid PVC sheets (with and without high barrier property)
- TP502 : Rigid APET sheets (with and without high barrier property)
  - Food Packaging
  - Pharmaceuticals
  - MAP packaging
  - Box Packaging

Papers
- TP601 : 1 SC Papers
- TP602 : Brown Kraft Papers
- TP603 : Bleached Kraft Papers
- TP604 : Ribbed Brown Kraft Papers
- TP605 : Poster Papers
- TP606 : Paper Boards for cup production
Industrial Products

PE Films

• TP101-TP108: **PE film for multi-purpose application**;

Multi-purpose application areas in the market such as Coffee, Dry & Fresh Foods, Doy Pack, Granulated & Powder Products.

Because of having high content metallocene and balanced PE formulation, the product has very high dimensional stability, very good seal performance even under the contaminated conditions.

Multi-colored version is also available.
• TP102: PE film for frozen food application

Providing excellent solutions for Frozen Food Applications with high crack & puncture resistance. Stays flexible at low temperatures without cracking.

Very good seal performance even under contaminated conditions.
Industrial Products

PE films

• **TP105 : PE film for easy-tear application**

TiePlast has proper solutions for all Easy Tear applications depending on end-user's production line (VFFS/HFFS) and product design requirements.
Industrial Products

PE films

- TP106 : **PE film for Bread Bag application**

PE films for Bread Bag applications especially with high gloss and the high puncture resistances. This films are also suitable for surface printing.
Industrial Products

PE films

- TP107: PE film for Chicken Bag application

TiePlast offers Chicken Bags suitable for cold conditions and high transparency. Suitable for surface print and printed version.
Industrial Products

PE Films

• TP109: Sanitary and Hygiene Application

TiePlast offers sanitary and hygiene products are available with easy tear options (MD/TD) and are suitable for surface printing as well.
Industrial Products

Kraft /PE laminates

- **TP301 : Kraft / PE Structures :**
  * White & Brown Kraft versions are available with various gsm and various color shade
  * Excellent dimensional stability
  * High bond strength
  * Superior heat-seal property
Industrial Products

- **TP302 : 1SC Paper / PE Structures**
  - Excellent Printability
  - Coated side is very Shinny
  - Excellent dimensional stability
  - High bond strength
  - Superior heat-seal property
Industrial Products

TP303 : 1 SC Paper/PE/ALU/PE Structures :

* Excellent Printability
* Very Shinny Coated side
• Excellent dimensional stability
* High bond strength
* Superior heat-seal property
• Very low transmission rates
* High water and oil Resistance

* Suitable for use of Agresive content and Pharma Usage
Industrial Products

- TP304 : 1 SC Paper/PE/ALU/Surlynn Structures :
  * Excellent Printability
  * Coated side is very shiny
  * Excellent dimensional stability
  * Very high bond strength
  * Superior heat-seal property
  * Very low transmission rates
  * High water and oil Resistance
  * Suitable for Pharma applications
Industrial Products

- TP305: NC Primer/ALU/PE/Paper/PE
- TP306: PE/ALU/PE Structures:
  * Excellent printability because of primer
  * Deep-freeze resistant formulation
  * Perfect dead-fold behaviour
  * Excellent dimensional stability
  * Very high bond strength
  * Very low transmission rates
  * High water and oil resistance
  * Suitable for Butter foil and ice-cream applications
Industrial Products

- TP307 : NC Primer/ALU/PE or ALU/PE Structures :
  - Excellent printability because of primer
  - Deep-freeze resistant formulation
  - Perfect dead-fold behaviour
  - Excellent dimensional stability
  - Very high bond strength
  - Very low transmission rates
  - High water and oil Resistance
Industrial Products

• TP308 : Rolls for Window Pouches & Bags :
  * Printed and Non-Printed Rolls for different paper types with customized window shapes
  * Spesificly desinged for Pouch making machines
  * Tailor made rolls and designs available
Industrial Products

TP309 : Metallized PET 12 mic / PE 10 gsm for insulation industry :

Various thickness and grammages are available

• Available as PE/METPET/PE, METPET/PE,
  Gold PET/PE and other colored version;

• Very high bond strenght

* Very good seal performance to other PE materials.

* No gauge band

* Consistent profile distribution in term of thickness
Industrial Products

TP310 : Pouches & Bags :

* Printed & Non-printed Pouches/bags are available with different customized design and size

* Available as :
  * Doypack
  * Flat-Bottom Bags
  * Three Side Sealed Bags
  * Floavor Bags

* Sterilization and Retort Process Bags for dry beans, rice etc.
TP311: Gusset or Non-Gusset Rolls for BigBag Liners:

- Different sizes and dimensions are available
- LDPE, HDPE, PE/EVOH/PE, PE/PA/PE structures

Industrial Products
Industrial Products

• TP400 : CPP Films for Food Application
  * CPP films for various food applications
  * Transparent, White and Metallized CPP Films
  * Thickness range from 20 up to 200 micron thickness
  * High Tech Europe CPP Lines
## Industrial Products

### CPP Films

<table>
<thead>
<tr>
<th>Application</th>
<th>Film Type</th>
<th>Thickness μ</th>
<th>With Range mm</th>
<th>Coil Diameter Ø</th>
<th>Sealing</th>
<th>Corona Side</th>
<th>Core Diameter &quot;</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lamination</td>
<td>TP401</td>
<td>20-200</td>
<td>25-2500</td>
<td>49 or 70</td>
<td>One Side</td>
<td>inside or outside</td>
<td>3 or 6 inch</td>
</tr>
<tr>
<td>Bread Bags</td>
<td>TP402</td>
<td>25-50</td>
<td>25-2500</td>
<td>49</td>
<td>Two Side</td>
<td>inside</td>
<td>3 or 6 inch</td>
</tr>
<tr>
<td>Biodegradable</td>
<td>TP406</td>
<td>35-100</td>
<td>25-2500</td>
<td>49</td>
<td>Two Side</td>
<td>inside</td>
<td>3 or 6 inch</td>
</tr>
<tr>
<td>Sterilizasyon</td>
<td>TP403</td>
<td>30-100</td>
<td>25-2500</td>
<td>49</td>
<td>Two Side</td>
<td>inside</td>
<td>3 or 6 inch</td>
</tr>
<tr>
<td>Frozen</td>
<td>TP405</td>
<td>25-50</td>
<td>25-2500</td>
<td>49</td>
<td>Two Side</td>
<td>inside</td>
<td>3 or 6 inch</td>
</tr>
<tr>
<td>Twist</td>
<td>TP408</td>
<td>25-35</td>
<td>25-2500</td>
<td>49</td>
<td>Two Side</td>
<td>inside</td>
<td>3 or 6 inch</td>
</tr>
<tr>
<td>Antifog</td>
<td>TP404</td>
<td>25-40</td>
<td>25-2500</td>
<td>49</td>
<td>Two Side</td>
<td>inside</td>
<td>3 or 6 inch</td>
</tr>
</tbody>
</table>
Flexible Packaging Lamination

As PolFoll, in our range of products in Flexible Packaging sector, system is classified as solvent-based and solvent-free adhesives for the usage of various areas: food industry, pharmaceutical, cosmetics and industrial products. Our adhesives for Flexible Packagings can be grouped into 3 segments as below:

- **Standard Performance:** Adhesives for the lamination films for general-purpose, metallized films and paper.
- **Medium Performance:** Adhesives for aluminium foil, metallized films, medium chemical resistance and sterilization resistance offering high adhesion value.
- **High Performance:** Adhesives for the film laminations which require high barrier characteristics, high chemical resistance and sterilization resistance.

PolFoll has a pilot facility in its laboratories for customer-oriented trials.
Industrial Products

- COLD SEAL LACQUER

As TiePlast Flexible Solutions, we have adhesives used for Cold Seal applications such as Polypropylene, metallized and pearlized films, PVC, PE and synthetic fabrics, paper and many other laminated and non-laminated structures.
**Industrial Products**

**Lamination Adhesives**

**POLFOLL LS3510 - LS2510**

**POLFOLL LS3510 - LS2510 Two-component middle-performance solvent-free laminating adhesive.**

**APPLICATION AREAS:**
POLFOLL LS3510 - LS2510 is especially suitable for the lamination of printed metallized and aluminum films BOPP, CPP, HDPE, LDPE, PET, PA, PVDiC, EVA, EVOH, PVOH products which need chemical and thermal resistance on high-speed machines.

**POLFOLL LS3910 - LS2910**

**POLFOLL LS3910 - LS2910 Two-component high-performance solvent-free laminating adhesive.**

**APPLICATION AREAS:**
POLFOLL LS3910 - LS2910 is especially suitable for the lamination of printed metallized and aluminum films BOPP, CPP, HDPE, LDPE, PET, PA, PVDiC, EVA, EVOH, PVOH products which need chemical and thermal resistance on high-speed machines.

**TP TiePlast**

*Your Reliable Packaging Partner*

**POLFOLL S7011 - S4011**

**POLFOLL S7011 - S4011** is a solvent based laminating adhesive which is two component and high performance.

**APPLICATION AREAS:**
Polfill S7011 – S4011 is used for BOPP, CPP, HDPE, LDPE, PET, PA, PVDiC, EVA, EVOH, PVOH, printed metallized and aluminium film lamination.
Industrial Products

- PVC and PET sheet extrusion for thermoformable rigid bottom cups

- TP501: Rigid PVC sheets (with and without high barrier property)

- TP502: Rigid APET sheets (with and without high barrier property)
  - Food Packaging
  - Pharmaceuticals
  - MAP packaging
  - Box Packaging
This brochure includes products as:

• Internal Flat Handle & Twisted Handle Paper Courrier Bags
• Flour Bags
• Tea, Charcoal and Litter Bags
• Flat and Satchel Bags (with and without window strip)
Internal Flat Handle & Twisted Handle Paper Courrier Bags

**PROPERTIES:**

* 70-120 gsm Kraft Paper from the best paper suppliers of Europe

* Min Dimensions:
  - Width: 18 cm
  - Gusset: 7 cm
  - Height: 24 cm

* Max. Dimensions:
  - Width: 54 cm
  - Gusset: 23 cm
  - Height: 70 cm

* Printed upto 8 color or Non-Printed versions are available
Flour Bags

Flour Bags

PAPER BAGS BROCHURE

Flour Bags

Single layer: White Kraft or Coated White Kraft 80-90gsm
Double Layers: Coated Paper/Brown Kraft or Coated White Kraft/Brown Kraft bags can be operated with high performance and quality in automatic flour filling machines with our 140 - 210 gsm paper types.
Printed. These bags are recyclable.
Standard dimensions:
1kg flour: 10 x 5.7 x 30 cm
2kg flour: 13.5 x 7 x 34cm
5 kg flour: 20 x 10 x 42 cm
10kg flour: 27 x 12 x 52 cm
Internal tape handle bags can be carried out for transportation for 5kg or 10kg flour.
Dimensions and paper weights may differ according to the filling machine of our customers.
Please contact for your special requests.
PAPER BAGS BROCHURE

Tea, Charcoal and Litter Bags

- White and Brown Kraft
- Single and Double Layer
- Printed Film lamination possible
- Wide dimension possibility
Flat and Satchel Bags
(with and without window strip)

Paper Type: Plain Shamua Kraft, Ribbed Shamua Kraft, White Sulphite, White Greaseproof Paper, Shamua Greaseproof Paper, Polyethylene Coated Paper, Polypropylene Coated Paper, Aluminum Coated Paper, up to 35gsm - 90gsm

Paper bags for bread, bakery and fast food products.
With a plain film or perforated film window for the visibility of the product inside,

Wicket bags with punching holes are for automatic filling machines.

Size Range:
Min. Width: 8 cm, Min. Gusset: 2.4 cm, Min. Length: 16 cm
Max. Width: 35 cm, Max. Gusset: 16 cm, Max. Length: 77 cm

Please contact for your special requests.
THIS BROCHURE INCLUDES NEW PRODUCTS AS:

- HDPE films for over-wrapping from 10 mic up to 200 mic
- Anti-corosive & Anti-Rust PE films and bags for metal part packaging
- Anti-Statik conductive films and Big-Bags for powder packing
SPECIALTY PE FILMS BROCHURE

HDPE films for over-wrapping from 10 mic up to 200 mic

TiePlast
Your Reliable Packaging Partner
SPECIALTY PE FILMS BROCHURE

Anti-corrosive & Anti-Rust PE films and bags for metal part packaging

<table>
<thead>
<tr>
<th>Product details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
</tr>
<tr>
<td>Code</td>
</tr>
<tr>
<td>Materials</td>
</tr>
<tr>
<td>Usage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specification</th>
<th>Type</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>VCI flat bag</td>
<td>As required</td>
<td></td>
</tr>
<tr>
<td>VCI cubic bag</td>
<td>As required</td>
<td></td>
</tr>
<tr>
<td>VCI gusseted/square bottom/folding/zipper bag</td>
<td>As required</td>
<td></td>
</tr>
</tbody>
</table>

| Thickness | 0.04–0.20mm |
| Color     | As required |
| Rustproof life | Above 24 months (According to instructions) |
| Package   | Standard export package or as customer’s requirement |

TiePlast
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Anti-corrosive & Anti-Rust PE films and bags for metal part packaging

• Product Features & Technical Details:

• Volatile Corrosion Inhibitor TPVCI-2020 is the new generation of creative high-tech products based on the combination of the high polymer material and VCI antirust technology. It combines the latest film technology with the most effective corrosion protection for all of your metal products. The film is used to pack and seal the articles for antirust, VCI contained in the film begins to sublimate and volatilize the antirust gas factors which diffuse and penetrate into the surfaces of the articles for antirust and adhere on them to form a compact protection film, protect your metals. Available with different colors and thickness in film form and bag form.

• With good corrosion inhibitive function. Validity period of antirust will be over 2 years

• Clean, harmless, non-toxic, environmental protection.

• It replace conventional rust preventatives such as oils. You save even more because VCI packaging eliminates all the degreasing or coating removal required in the past. Now your product can be used immediately. Save labor and time, improve work efficiency and save cost.

• It is extensively applicable, and can used for either single part or entire equipment.

• It is good in printability, which is helpful to improving the image and the grade of the articles for antirust.

SPECIALTY PE FILMS BROCHURE
SPECIALTY PE FILMS BROCHURE

Anti-Statik conductive films and Big-Bags for powder packing

TiePlast
Your Reliable Packaging Partner
# Anti-Statik Conductive Films and Big-Bags for Powder Packing

## Technical Details & Product Features

### SPECIALTY PE FILMS BROCHURE

<table>
<thead>
<tr>
<th>Item</th>
<th>American Society for Testing Materials &amp; ASTM</th>
<th>Test Standard</th>
<th>Unit</th>
<th>Test Result</th>
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<tbody>
<tr>
<td>Melt Index</td>
<td>D1238</td>
<td>GS3882</td>
<td>g/10min</td>
<td>2.1</td>
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<tr>
<td>Water Absorption Rate</td>
<td>D570</td>
<td>GB/66-04-10</td>
<td>%</td>
<td>0.5</td>
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<tr>
<td>Density</td>
<td></td>
<td>GB1033</td>
<td>g/cm</td>
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<tr>
<td>Tensile Strength</td>
<td>MD</td>
<td>GB/66-04-10</td>
<td>MPa</td>
<td>MD: 32.01</td>
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<tr>
<td></td>
<td>TD</td>
<td></td>
<td></td>
<td>TD: 33.75</td>
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<tr>
<td>Breaking Elongation</td>
<td>MD</td>
<td>GB/66-04-10</td>
<td>%</td>
<td>MD: 1200</td>
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<tr>
<td></td>
<td>TD</td>
<td></td>
<td></td>
<td>TD: 585</td>
</tr>
<tr>
<td>Friction Coefficient</td>
<td>Outer Surface</td>
<td>GB/66-04-10</td>
<td>Us</td>
<td>0.09</td>
</tr>
<tr>
<td></td>
<td>Inner Surface</td>
<td></td>
<td>Ud</td>
<td>0.06</td>
</tr>
<tr>
<td>Static Dissipation</td>
<td>5000~0V</td>
<td>SJ/T10694-1996</td>
<td>Sec.</td>
<td>&lt;2</td>
</tr>
<tr>
<td>Heat Seal Temperature</td>
<td></td>
<td>GB/66-04-10</td>
<td>F</td>
<td>250-375</td>
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<tr>
<td>Capacitance Release</td>
<td>E1A541</td>
<td>SJ/T10694-1996</td>
<td>V</td>
<td>&lt;15Kv Voltage Difference E1A541</td>
</tr>
<tr>
<td>Size</td>
<td>GB/66-04-10</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Appearance</td>
<td></td>
<td>GB/66-04-10</td>
<td></td>
<td>Black sheet (No powder and oil)</td>
</tr>
</tbody>
</table>

### Quick Details

- **Material**: PE
- **Type**: Conductive Film
- **Thickness**: 0.025mm-0.2mm (25 mic to 200 mic)
- **Melt Index**: 2.1 g/10min
- **Usage**: Packaging Film
- **Water Absorption Rate**: 0.5%
- **Feature**: Conductive
- **Density**: 0.92g/cm³
- **Hardness**: Soft
- **Static Dissipation**: <25 sec
- **Processing Type**: Blow Molding
- **Surface Resistance**: 10⁷Ω-10⁹Ω/100mm
- **Transparency**: Opaque
- **Color**: Customizable
- **Brand Name**: TPCON
- **Seal**: Open Top or Ziplock
- **Model Number**: 2020
- **Name**: Antistatic ESD Polyethylene Black Conductive Film
Please feel free to ask any kind of your inquiry and question to our experienced technical sales representatives

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