



Sustainable Packaging Solutions

Camvac is one of the leading global suppliers of metallised film and clear barrier films and laminates for a wide range of Food Packaging, Liquid Packaging (Bag-in-Box Solutions), Medical Applications, Construction and Insulation products. Being at the forefront of technological developments, Camvac works closely with our customers to develop new products within the film, laminates and packaging sectors.

Located in Thetford, England, Camvac operates four metallising lines and two of the largest laminating lines in the world. Our metallising lines are capable of both aluminium and aluminium oxide vacuum deposition. Camvac's laminating lines are proficient in solvent, solvent free and thermal laminate production. A wealth of film metallising expertise in high metal adhesion, high barrier, decorative, low optical density and clear barrier means that Camvac is well placed to continue as a leading solution provider in each of its chosen markets.

Camvac's metallised films and laminates can be found in a wide range of consumer end products and packaging, from lidding on ready-meals to films within construction insulation. Camvac's Cambrands are recognised globally and showcase Camvac's reputation for product quality and innovation.

Camvac's product range is constantly developing and evolving to meet the ever-changing needs of the consumer. Camvac has invested heavily into technological advances enabling sustainable packaging solutions to be available across most of our product portfolio. The outcome of these investments is the Camvert Range. Camvert has been precisely designed to provide the packaging industry with sustainable packaging solutions. These advances have been developed to reduce the packaging material to a level where it does not affect shelf life of the product but is also environmentally friendly and sustainable.

Many of our sustainable packaging products are versatile and are applicable to more than one end use. The Camvert range includes certified home compostable films, PCR base films that are food contact approved and recyclable options.

#### Key Benefits of our Camyert Range

- Home Compostable Options
- Biodegradable Packaging
- Widely Recyclable
- Over 30% PCR Content Laminate Structures
- Mono Material Laminate Options
- Clear Film Options
- Metallised Film Solutions
- High Barrier Performance

#### Our Standards

FDA / IMS Compliance

ISO 9001:2015

British Safety Council Member

**BRCGS Packaging Materials Certificated** 









# Camplus Extra MDO

# Extremely High Barrier Machine-Direction Orientation Polyethylene, PE

Camplus Extra is Camvac's market leading extremely high barrier, high metal adhesion plasma treated technology, creating high inter-ply bond strength and enhanced barrier properties.

Camplus Extra MDO PE in single-web form offers the converter a high barrier, OTR and MVTR, polyethylene (PE) film solution that can be laminated to other polythene films to provide recyclable mono film solutions for the single-use consumer packaging markets.

Camvac's unique metallisation process creates a metallised MDO PE film that has enhanced barrier properties and significantly improved metal adhesion offering higher inter-ply bond strength.

#### **Applications**

Typical end-uses would be conversion into printed or unprinted mono-film laminates for the snack food market where high gas barrier, aroma barrier and light barrier are all required for extended product shelf-life.

#### Benefits of MDO

- Reduced film thickness
- Reduced packaging costs
- Possibility of 100% mono material structures that can be recycled
- High pressure resistance
- Exceptional barrier performance, both MVTR and OTR
- Camplus Extra process to surpass the necessary barrier requirement the market demands (metallised version)







# Camclear® Transparent Barrier Film

Another Camvac 'first' and now an industry standard in its own right, Camclear® meets a number of performance criteria regarding barrier transmission and clarity which make it unbeatable for a variety of applications. Now developed as an environmentally friendly option for brands requiring a sustainable barrier film solution. Camclear® Camvert is a great alternative to the traditional plastics used within the food lidding films that often end up in landfill sites.

Camclear® is a chlorine-free transparent barrier film and is highly versatile, having excellent oxygen and moisture barrier performance. Camclear® is available in a variety of substrates.

#### **Applications**

Fresh food packaging, confectionery, snacks, retortable applications, bag-in-box and dried foods.

#### Benefits of Camclear®

- Range of single web base films
- Chlorine free barrier coating environmentally friendly
- Excellent light transmission
   / low haze values excellent clarity
   and product visibility
- Higher yields versus other structures as the barrier is independent of film thickness
- Excellent moisture / oxygen barrier
- Microwavable / Ovenable
- Highly versatile
- Printable
- Retortable

# Typical Structure

PET 12µ OR OPP 20µ





# Camshield T<sup>®</sup> Aluminium Oxide Film

Sustainable aluminium oxide films with a proprietary in-chamber top coating for both barrier protection and product enhancement.

Camshield  $T^{\otimes}$  uses Camvac's proprietary in-chamber vacuum metallising process to apply a protective topcoat over the aluminium oxide layer, thus providing both very high barrier protection and enhancement. This process can be applied to a wide range of base films and the end use applications are numerous.

#### **Applications**

Fresh food packaging, confectionery, snacks, retortable applications, bag-in-box and dried fruits.

# Benefits of Camshield T®

- Range of single web base films
- Chlorine free barrier coating environmentally friendly
- Extra high barrier
- Excellent light transmission
   / low haze values excellent clarity
   and product visibility
- Higher yield versus other structures as the barrier is independent of film thickness
- Highly versatile

# Typical Structure

PET 12μ OR OPP 20μ





# Extrapet

# Transparent Barrier Polyester Laminates

For a wide range of processed meats, fresh meats, poultry, pastas, vegetable and bakery, where presentation and fresh appearance is critical, Extrapet provides a variety of environmentally friendly solutions in peel and non-peel, anti-fog and high barrier options.

As a direct result of Extrapet being an all PET (mono material) structure, the potential of total recyclability, where post-consumer collection infrastructure exist, is possible. Extrapet can also include the benefit of recycled content within the manufacture. During the manufacturing process, Extrapet uses Camvac's AlOx coated transparent barrier film Camclear.

#### **Applications**

Fresh food packaging for; processed meats, fresh meat, poultry, vegetable packaging and bakery packaging.

# Benefits of Extrapet

- Chlorine free barrier coating

   environmentally friendly
- Excellent seal integrity
- Peel / non-peel options
- Anti-fog / non-anti-fog options
- Excellent light transmission / low haze values excellent clarity and product visibility
- High barrier laminates offer extended shelf life
- Extrapet laminate is an all PET mono material, thus allowing the potential for recyclability
- Microwaveable / ovenable (Camclear® Extrapet)
- Surface printable
- Thinner laminate structures material cost savings

# Typical Structure



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# **Extrapet PCR**

# Over 30% Post-Consumer Recycled Barrier Lidding Film

ExtraPET PCR has been purposely developed to meet the growing consumer demand for more sustainable lidding film solutions. The new film development sets out to reduce plastic waste and plastic going to landfill. It also utilises the circular economy, reducing the use of fossil feedstocks, alongside reducing carbon footprint, and supporting recycling steams along with improved waste collection. The post-consumer recycled grade film still provides an all-PET structure and maintains Camvac's high gas barrier performance, both OTR and MVTR as required for MAP and CAP packaging applications. Available in either peel or weld seal laminate structures, the mono-material lidding film has been designed to offer excellent sealing properties and exceptional barrier performance. Whilst guaranteeing the film appearance is not hampered using food contact approved PCR grade base webs.

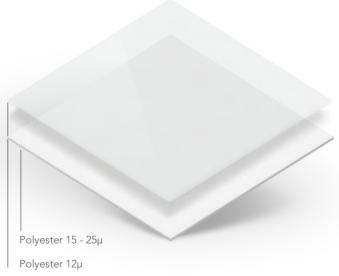
#### **Applications**

Fresh food packaging for; processed meats, fresh meat, poultry, vegetable packaging and bakery packaging.

# Benefits of Extrapet PCR

- Mono material (widely recyclable)
- Chlorine free barrier coating (environmentally friendly)
- Minimum 30% post-consumer recycled (PCR) content
- Peel and weld seal options
- Marketing leading antifog properties
- Excellent light transmission / low haze values.
- Excellent clarity and product visibility
- High barrier laminate offers extended product shelf-life
- Print receptive top coating

# Typical Structure





# Camfresh®

# Transparent Barrier Laminate

Environmentally friendly transparent barrier laminates for the fresh food packaging industry.

The growing market for packaged fresh food, driven by the consumer demands of preference and choice, has resulted in the development of Camfresh® in high and standard barrier versions. Recent changes in consumer demand for more environmentally friendly packaging has led Camvac to take the core Camfresh® developments and apply them to a sustainable solution.

For a wide range of processed meats, fresh meats, poultry, pastas, vegetable and bakery, where presentation and fresh appearance is critical, Camfresh® provides a variety of solutions in peel and non-peel, anti-fog and non-anti-fog, and tailored barrier options which are available in recyclable options.

Camfresh® laminates use Camvac's AlOx coated transparent barrier film - Camclear®.

#### **Applications**

Fresh food packaging for; processed meats, fresh meat, pasta, poultry, vegetables, bakery and dairy products.

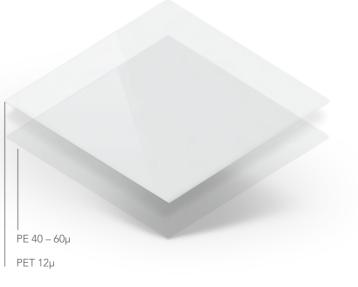
#### Benefits of Camfresh®

- Chlorine free barrier coating

   environmentally friendly
- Excellent seal integrity
- Peel / non-peel options
- Anti-fog / non-anti-fog options
- Excellent light transmission / low haze values excellent clarity and product visibility
- High barrier laminates offer extended shelf life
- Surface printable



# Typical Structure





# Camplex Liquid Packaging Laminates

Camvac has developed a liquid packaging laminates portfolio over a number of years.

Carefully selecting raw materials combined with patented vacuum coating and lamination process technologies, ensures that each product is innovated and engineered to meet the demanding technical requirements of each end application.

Camvac laminates provide consistent high oxygen, moisture and aroma barriers, extending product shelf-life. Exceptional strength characteristics provide high seal integrity, burst strength and drop performance – key characteristics for the technically demanding liquid packaging applications.

Recent developments to provide more environmentally friendly laminates include films with PCR content, recyclable laminates and higher quality laminates to reduce overall bag weight and plastic content.

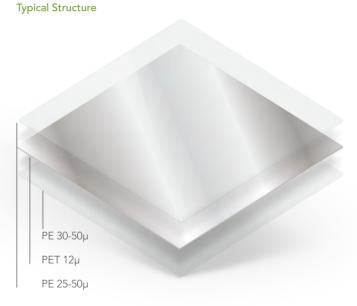
#### **Applications**

Bag-in-Box, Bag-in-Drom, IBC & Flexitanks. Typical products include; wine, post-mix syrup, fruit juices, beverages, tomato paste, fruit concentrates, dairy products (milk, cream, ince-cream), liquid eggs & bakery products, olive oil & vegetable oils, industrial oils, adhesives, solvents and chemicals, paint and more recently hand sanitiser.

# Benefits of Camplex

- Market leading laminates with 30+ years industry expertise
- Laminates used for industry standards in the manufacture of bags from 1L to 1,200L
- Speciality laminates developed for aseptic packaging, membrane films and flexitanks
- In-house vacuum coating metallisers enable controlled gas barrier with additional barrier development capabilities
- Unique triplex laminator has the dual capability of manufacturing both adhesive and thermal laminations products
- Lamination width up-to 2200mm wide is possible
- In-house slitting capability ranges from 2200mm, down to 40mm. Crucial for slitting the FDA/IMS approved membrane laminate films utilised in the aseptic and dairy packaging markets.

# CHANNERT



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# Camplus® High Barrier, High Metal Adhesion

Plasma treated films for high barrier and high metal adhesion.

Camvac were first to develop a surface treatment which enhanced adhesion and thus interply bond strength. This knowledge and experience has been transferred into our Camplus® Camvert film range.

The Camplus® plasma treatment is still a unique Camvac development, adapted to accommodate the varying base films within our compostable and biodegradable ranges.

We design and manufacture our own plasma treaters and also license the technology to other converters and film producers. The Camplus® process has been developed to offer excellent barrier and interply bond strength within a sustainable film solution.

#### **Applications**

A wide range of eco-friendly base film materials can be 'Camplussed' depending on end user application.

# Benefits of Camplus®

- Improved metal adhesion offers interply bond strength and enhanced barrier
- Optimal product protection of more demanding products such as liquids
- Improved barrier retention in downstream processing
- Print receptive
- Wide choice of base films can be 'Camplussed'. CPP, OPP, PE, PET





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Construction and Insulation.

Being at the forefront of technological developments, Camvac works closely with our customers to develop new products within the film, laminates and packaging sectors.

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