

BUSINESS TYPES

*World Trade, Products Studies, Consulting, Engineering Projects, International Suppliers

BUSINESS FIELDS AND TOPICS

***PLASTICS PIPES**



1-*Pipes for examples:

- U- PVC Pipe up to 1000mm
- PE Pipe up to 2400mm



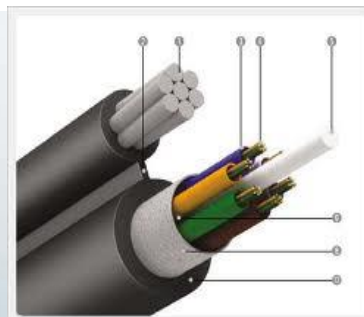
钢丝网骨架成品



- PVC Corrugated Pipe
- Single, Double Wall Corrugated Pipe



- PE, PP Multi-Layer Pipe
- Fiber Reinforced Pipe (FRP)
- PPR, PEX, PE-RT Pipes



• High Pressure RTP Twisted Pipe



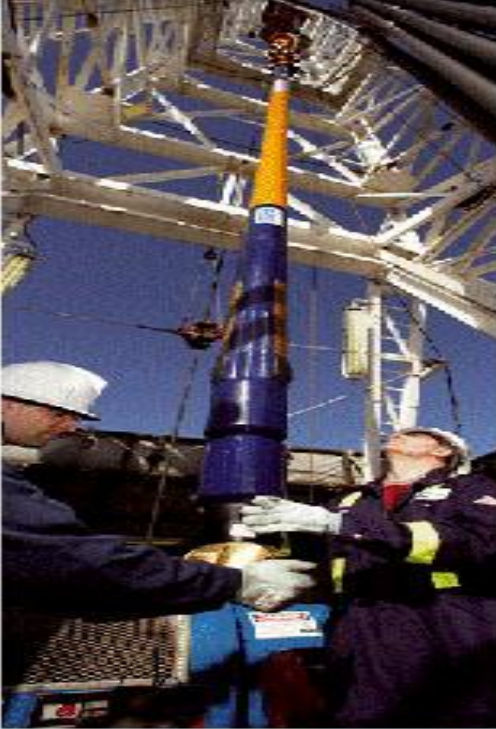
• PE- Steel- PE, three layer Big Pipe



2-*Examples for Pipes Applications and Projects:

Introduction	The Pipes: Costs, Value and Price
CORRUGATED PLASTIC PIPE THE BEST CHOICE  • SUPERIOR SERVICE LIFE • GREATER COST EFFICIENCIES • ENVIRONMENTALLY SUSTAINABLE • GLOBALLY ACCEPTED	The importance of promoting the true value of a pipe system. This includes not only the cost of the pipe itself, but the costs of installation and maintenance, plus the cost of failures. We questioned how well customers understand this and how much they simply look at the price of the pipe. We urged the plastics pipe industry to provide fact-driven evidence with regard to the "less visible costs", because the trend in inter material competition is moving towards the lowest costs over the lifetime of a product. "It is important to educate customers about the difference between price and cost. We also outlined some of the innovations in plastics pipes technology that can help to reduce total lifetimes costs for certain applications. For example, these can include:

FINE PLASTIC PRODUCTS



Lining Pipes

The offshore industry is one of the most demanding environments in which a material needs to perform – and those demands continue to increase.

The growth of high temperatures plastics – such as Peek and PPS – has seen them make inroads into this challenging market. And they need to pull their weight.

In this industry, failure is a very expensive option: replacing a faulty seal or broken pipe can cost more than the time spent on proper research and specification, besides the environmental impact.

Cable Protection:

Flexible single wall, double wall and multi-layer corrugated pipe for cable protection, in house building, road construction and long-distance circuits.

Diameters: from 10 mm I.D. to 250 mm O.D.

Drainage:

Single, double or triple wall pipe for civil engineering, land and road drainage.

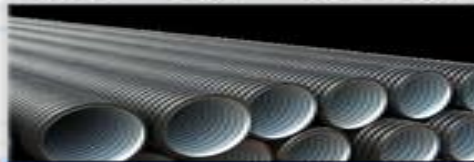
Diameters: from 50 mm O.D. to 1200 mm O.D.

حماية الكابلات:

تستخدم مواسير حماية الكابلات سواء أن كانت ذات جدار أحادي مرن أو جدار مزدوج أو متعددة الطبقات المتعرجة في بناء المنازل، بناء الطرق دوائر المسافات الطويلة (long-distance circuits). وتتراوح أقطار هذه المواسير بين 10 ملليمتر (I.D.) إلى 250 ملليمتر (O.D.).

الصرف:

كما يمكن إستخدام الأنبوب ذا الجدار الأحادي أوالمزدوج أو الثلاثي في الهندسة المدنية،الصرف الصحي تحت الأرض والطرق. وتتراوح أقطار هذه المواسيرمن 50مليمتر (O.D.) إلى 1200 ملليمتر (O.D.).



Sewage and Storm Water:

Double and triple wall pipe for waste water and storm water disposal Diameters: from 100 mm I.D. to 2400 mm O.D.

Advantages:

- High production speed
- Material saving
- Easy handling
- Resistance to corrosion
- High flexibility
- High ring stiffness
- Excellent water flow

مياه الصرف و (storm):

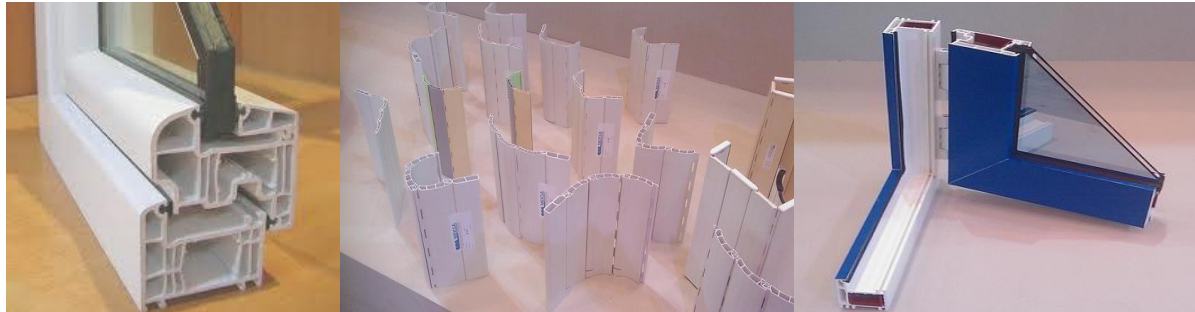
تستخدم مواسير مزدوجة أو ثلاثية الجدار في التخلص من مياه الصرف الصحي أو مياه العواصف والأمطار (storm water) ويتراوح قطرها بين 100 ملليمتر (I.D.) إلى 2400 ملليمتر (O.D.).

المزايا:

- سرعة عالية في الإنتاج
- توفير المواد
- سهولة في التعامل والمعالجة
- مقاومة التآكل
- مرونة عالية
- صلابه عالية في الإستدارة (عند القرع)
- تدفق مياه بطريق هائلة

*** PLASTICS PROFILE**

- PVC, PC, PP, PE Window Profile



PROJECTS AND MARKETS

Windows and Doors Profiles

Rapid strides in the development of plastic processing machinery increased levels of sophistication has not only expanded the scope for processing of different thermoplastics, but has also opened up exciting new avenues. The U-PVC window market has undoubtedly been the rising star of the European PVC business in the last 30 years.



Modest beginnings in Germany in the 60's and 70's and then UK and other European countries in the 80's provided the platform for rapid growth during the last 20 years.

An estimated 10,000,000 tons of PVC is consumed for window profiles - accounting for 60% of the Rigid Profile market & 13% of the total PVC Market in West European Countries.

Germany, UK and France account for 85% of the total PVC Profile business in Europe.

Besides new construction, there is an equal demand for replacement of windows in old buildings.

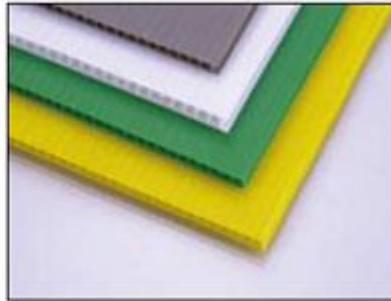
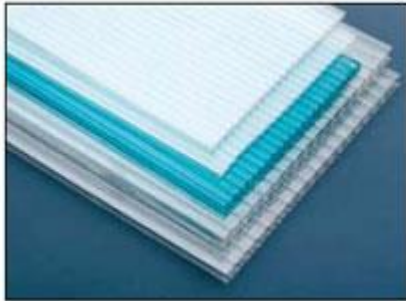
Parts of Eastern Europe and Turkey have also seen considerable growth in the recent years.

فوائد منتجات مركبة الخشب البلاستيكية (WPC)

- مقاومة عالية ضد الآثار البيئية الخارجية.
- مقاومة الرطوبة، مقاومة عوامل الطقس.
- إستقرار الأبعاد، طول العمر بالإضافة إلى مظهرها الطبيعي.
- مقاومة التعفن والتصدع والتشقق.
- مستقرة في نطاق واسع من تغيرات درجات الحرارة.
- مقاومة عالية للإنضغاط.
- يمكنها العمل ببساطة كالخشب الطبيعي تماماً.
- لها قابلية القلاووظ وقدرة على الاحتفاظ بالمسامير (المسمرة).
- تنتج بسهولة وتشكل أيضاً بسهولة.
- خصائص حرارية ممتازة.
- القدرة على الحد من إنتشار اللهب (النار).
- صديقة البيئة.
- مقاومة عالية للإنزلاق.
- لا تحتوي على مواد كيميائية سامة أو مواد حافظة.
- قابلة لإعادة التدوير.
- تتمتع بأسعار تنافسية.

كما يمكن أن نضع لوحات تزين أنيقة ذات جودة عالية ومحتفظة بالخصائص البصرية الدائمة ومخصصة لأنواع من النواخذ عند عمليات الإنتاج.

- Foaming Profile
- PC, PP, PE Hollow Profile Board



- Wide Door Profile



***WPO – WOOD&PLASTIC COMPOSITE PROFILE**

- PVC, PC, PP& Wood Profile



Wood plastic compound

مركبة الخشب
البلاستيك



WPC products

The production of WPC uses fine wood waste sawdust mixed with various plastics (PP, PE). The powder is extruded to a doughlike consistency and then extruded to the desired shape. By adding additives such as colorants, coupling agents, stabilizers, blowing agents, reinforcing agents, foaming agents, lubricants help tailor the end product to the target area of application.

منتجات مركبة الخشب البلاستيك (WPC)

عادة ما يستخدم في إنتاج مركب الخشب البلاستيك (WPC) مخلفات من الخشب الجيد مثل نشارة الخشب ممزوجة ببلاستيكات مختلفة مثل (PP, PE). يتم بثق المسحوق ليصبح على شكل عجينة متماسكة ومن ثم يتم بثقه إلى الشكل المطلوب. بإضافة بعض الإضافات مثل الملونات، وسائط التلاحم، المثبتات، وسائط النفخ، وسائط التعزيز، وسائط للقوم، وتساعد مواد التشحيم والتزيت على توصيل المنتج النهائي إلى المنطقة المطلوبة في التطبيق.

With up to 80 percent wood fibre content, wood-plastic composites behave like wood using conventional wood-working tools. At the same time, they are extremely moisture-resistant. There is little or no water present, thus increasing resistance to rot. Wood-plastic composites are already widespread in outdoor use for decking, cladding, park benches, etc. There is also a growing market for potential indoor uses such as door frames, trim and furniture.

وبنسبة تصل إلى ما يزيد عن 80% من مضمون ألياف الخشب في مركبات الخشب البلاستيك تخضع لأدوات وعدد التجارة التقليدية. وفي نفس الوقت فهي تتمتع بقدرة فائقة على مقاومة الرطوبة. فهناك القليل - أو نسبة متعذمة من الماء - مما يزيد من مقاومتها للتعفن. تستخدم الآن بالفعل مركبات الخشب البلاستيك على نطاق واسع الانتشار في استخدامات الأماكن المفتوحة في أعمال الزينة والديكور، الكسوة أو مقاعد الحدائق العامة وأشياء أخرى. كما أن هناك نمو ملحوظ في سوق مستلزمات الأماكن المغلقة مثل إطارات الأبواب، والزخارف والأثاث.



* Application Examples for PVC, PE, PP, PC& Wood Profile

Decoration, Building, Front Wall



Furniture, Interior, Partition



Outdoor, Flooring, Decking



*PLASTICS FILM

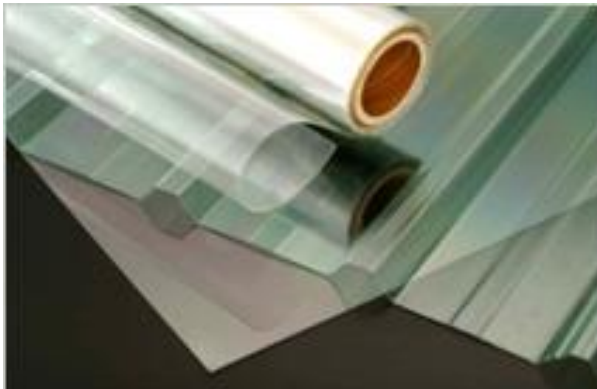
- Clear, Color PVC Film



- LDPE, HDPE, LLDPE, EVA Air Bubble Film
- PE, PP Casting Film



- BOPP Film



• Metallized Film



ASK THE EXPERT



Co-extrusion of PVDC with Polymers Giving Better Performance and Lower Cost

To obtain barrier properties such as oxygen, aromatic hydrocarbons, water vapor and chemical resistance, PVDC is coated on polyamide or other plastics films such as PVC and PP.

This requires several coating passes (at least 5-6). Besides, the equipment for coating is expensive, and this capital investment for coating equipment increases the coating cost.

A new technology has been developed, in which PVDC is coextruded with polyamide.

*Application Examples for PVC, PE, BOPP, PP, PC, PMMA, ... Films

Wrapping & Packing, Water Proofing,



Labeling & Laminating, Isolating, Coating



Packaging, Stationery



*PLASTICS SHEET

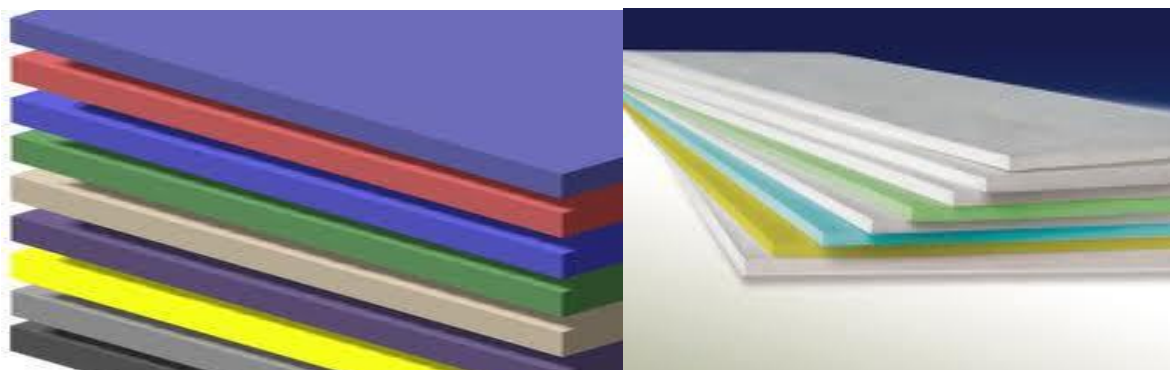
- PVC Sheet
- PVC Free Foamed Sheet
- PS, HIPS, PC Sheet
- PP, HD/ LD-PE Sheet



- PC, ABS, PMMA Sheet



- EPE Foaming Sheet



- Aluminum & Plastic Laminating Sheet
- PP& CaCo3 Sheet
- PP, HIPS, PVC, PC, PE, PET, ABS, EVA, EVAOH Hollow Sheets



***PLASTICS PLATE**

- PE , PP Plate
- PVC Skinning Foaming, Free Foaming Plate
- CPP, CPE, EVA Plate



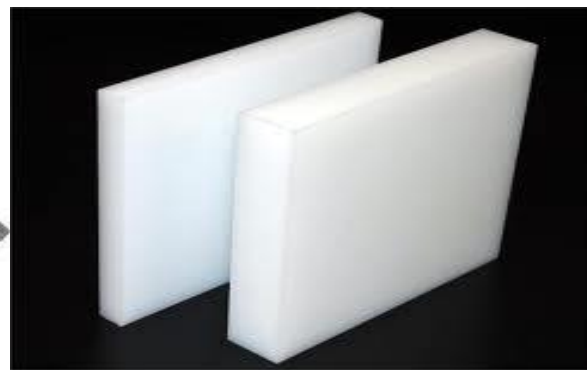
- Aluminum, Wood & PE Compound Plate



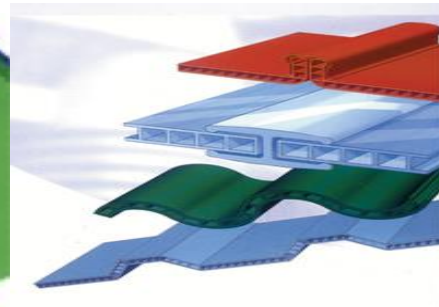
- Wood & Plastic Composite Plate



- XPS, XPE, IXPE Foam Plate
- PVC Floor Wide Board



- PC, PVC Wave or Corrugated, and Hollow Board



***Application Examples for PVC, PE, PP, PET, PC, PMMA,.. Film and Sheet**

Packing Food & Table Tools

PP homopolymer for use in industrial sheet applications. The grade been tested by an international producer of industrial sheet. It is a natural, nucleated grade with high melt viscosity, plus high heat and extraction stability.

The sheet industry is on an upward curve, thanks to a number of industry trends: the drift from injection moulded towards (cheaper) thermoformed packaging, and the boom in stadium building – boosting the demand for high performance polycarbonate sheet – are just two examples.



Total presented several polystyrenes for the refrigeration sector, including HIPS with improved environmental stress crack resistance

Isolating, Decorative and Coating Membrane



TPO-based membranes are becoming widely used. It has good root resistance for green roofs and can be produced in light colors to reflect sunlight and cut building cooling costs.

The sheet industry is on an upward curve, thanks to a number of industry trends: the drift from injection molded towards (cheaper) thermoformed packaging,



The technology is aimed at packaging for the pharmaceutical and food industries, as well as in the manufacture of furniture, and decorative or high-gloss films. For example, even the smallest burner defects can be recognised reliably on PVC pharmaceutical films.

Fluoropolymer roofing membranes are used in a number of sports stadiums, including Johannesburg's Soccer City



**Application Examples for PVC, PE, PP, PET, PC, PMMA,.. Sheet and Board*

Outdoors & Partitions



Furniture & Flooring & Decking



Buildings & Front Wall Decoration & Advertising



* PIPE FITTINGS

• PE Pipe Fittings



• PPR Pipe Fittings



• PVC Pipe Fittings



• Corrugated Pipe Fittings



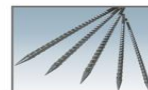
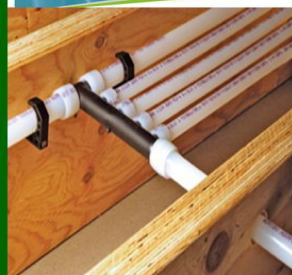
*Application Examples for PVC, PE, PP, PPR Fittings

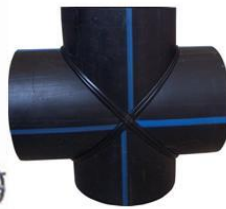
The industry typically uses the term 'pressure pipes' to bundle together specific market segments – primarily the transmission and distribution of water and natural gas.

The socket is from the same polymer as the pipe, which eliminates shrinkages and other problems related to the 'memory effects' that can affect traditional polyolefin socketing systems.

"Our target is to use the same material in both cases – which is determined by the pipe properties," says Kossner. He stresses that the process is for making PE and PP pipes – not PVC.

The added strength of this cuff is an advantage for tightening – which makes it ideal for making sewage pipes. The process also produces pipes with high mechanical strength.





PTFE coated heating plate, adjustable knob for temperature control, difference in heating plate surface temperature.

Anti-siphon traps retain seals under the most demanding conditions.

All fitting sockets have factory-fitted coils, as opposed to loose-fit, guaranteeing contamination free joints, while Vulcathene's multiple jointing capability allows several joints to be made simultaneously, reducing installation costs.



The range includes a complete drainage system, including waste outlets, sinks, drip cups, antisiphon Traps.

The Enfusion control box automates the process, ensuring proper electrical connections, joint timing and input/output current levels. Fusion time is automatically adjusted for varying ambient conditions.



***PP WOVEN BAGS AND SACKS**

*** PP Sealing Bags till 2 ton**

*** PP Laminated Sacks**

*** PP Woven Yarn**

***PP Jumbo Woven Sacks till 2 ton**



*** Application Examples for PP Sealing Bags and Sacks**



*** Application Examples for PP Heavy Bags and Jumbo Sacks**



There is an exception for plastics bags used to hold fruit, vegetables or raw meat in order to prevent contamination with other items. While the use of BOPP film in food packaging has shown rapid growth estimated current worldwide demand for BOPP for food packaging at 3.5 million tonnes (which does not count labels) – equivalent to over 60% of the total BOPP film market.

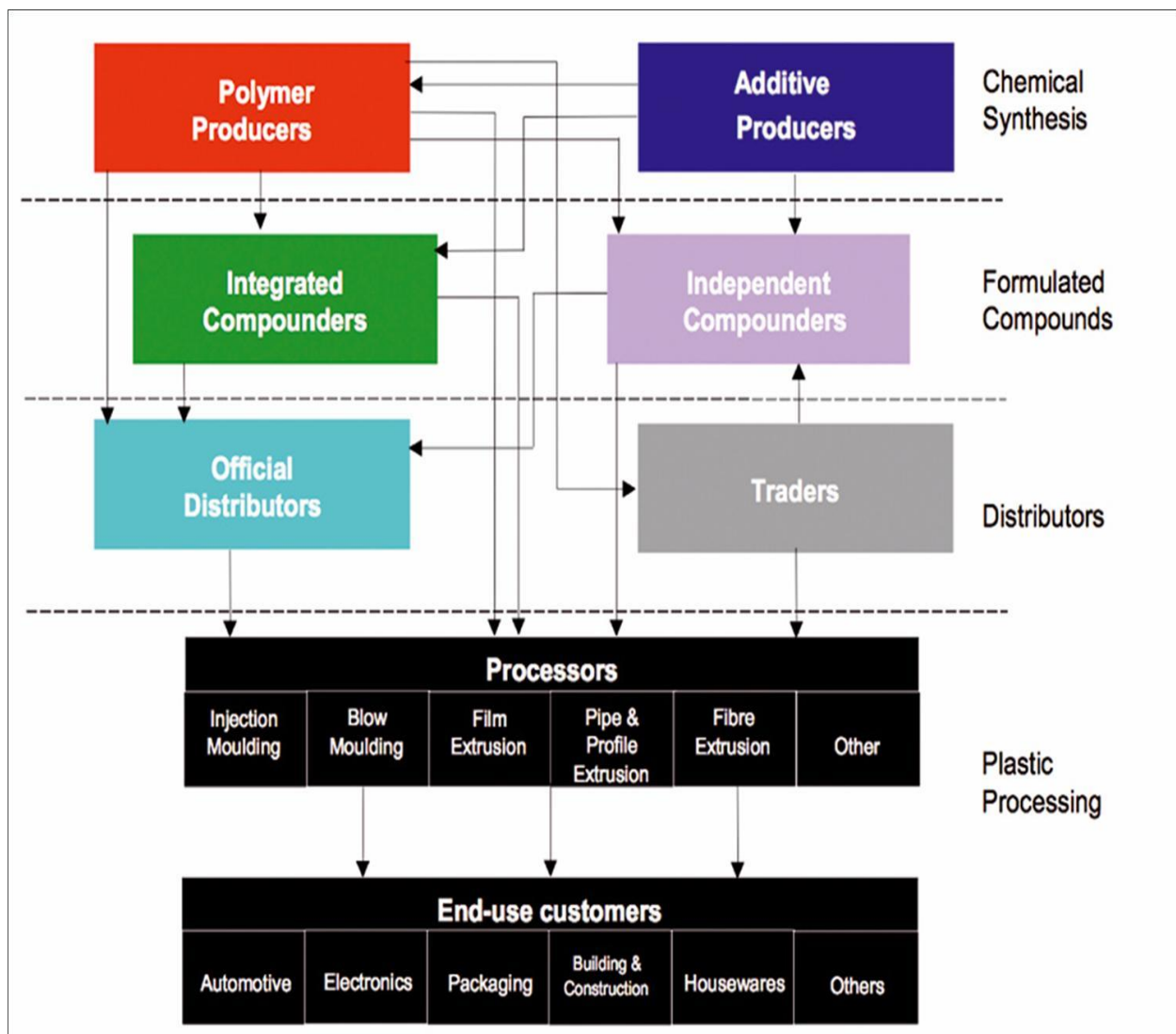
The use of alu transparency used for the packaging of foods which do not need a light barrier.

PP food packaging film that uses the additive can resist the formation of moisture droplets (or 'fog') on the surface that touches the food product. The additive acts as a wetting agent, spreading moisture into a thin layer instead of allowing it to form separate droplets. This improves shelf appeal by maintaining clarity, and may also increase shelf life.

The new packaging demonstrates our overall commitment to protect the quality of patient care while helping to preserve the environment.



***PVC, PE, PP COMPOUND, ADDITIVES, MASTERBATCH, FILLER**



Application Examples for PVC, PE, PP COMPOUND, FILLER, MASTERBATCH



Color Master batches for Solution Dyed Polyester

We offer custom color master batches and single pigment dispersions for manufacture of solution dyed polyester fiber for various applications such as:

Automotive textiles

Awnings and other outdoor applications

Upholstery and home textiles

Apparel

Instruction

During the actual spinning applications, the dosage of the master batches and the spinning process should be adjusted in accordance with the raw materials. It is recommended that the temperature be controlled within 280~295. The PET color master batch has a strong moisture absorption, so it should be completely dried before using.

Application Examples for PVC, PE, PP COMPOUND, FILLER, MASTERBATCH



We provide our machinery users with consistent high productivity and product quality and the maximum cost effectiveness with XINDA technology. The XINDA twin screw (P)SHJ series is ideal for precise compounding of polyolefins, engineered plastics and other continuous processes.

Color masterbatch

PE, PP, ABS, AS, PA, EVA, PET+pigment

Filler masterbatch

PE, PP, EVA, etc + CaCO_3 , talc, Titanic powder, etc

ABS, PC, PS, etc + ATH, MGH, etc

PP, PA, ABS + ferrous powder, ceramic powder, etc.

Reinforcement

PP, PBT, ABS, AS, PA, PC, POM, PPS, PET+ long/short glass fibers

Functional masterbatch

PE, PP, PS, etc + starch, decomposing agent

PP, PA, ABS, PBT, etc + flame-retardant agent

PE, EVA, ABS, etc + Carbon black

Wire and cable compounds

HFFR; XLPE; Semi-conductive; Sioplas, etc.

Powder coating

Hybrid; Polyester; Polyurethane; Epoxy, etc.

Direct extrusion

Application Examples for PVC, PE, PP COMPOUND, FILLER, MASTERBATCH



Polypropylene/talc compounds in thermoforming improve food packaging:

- > better acid resistance than calcium carbonate
- > meets migration requirements of EN 1186-5
- > effective oxygen barrier for longer shelf life
- > higher stiffness allows lower wall thickness

COPMOUND

Infinity's product ranges includes: structurally reinforced compounds, using in electrical, automotive, medical, painting, ceramics, retardant fire, flame, UV applications

FILLER

Nitride filler enables highly thermal conductive and electric insulating polymers without any compromise for processing and tool life.

Calcium carbonate filler is formed through a process known as diagenesis whereby sea organisms are deposited on the sea bed and then converted to calcium carbonate sedimentary rock.

