





Arkema at Brasilplast 2009 – Sao Paulo
Stand A50 – B61
May 4th - 8th 2009

Arkema unveils its latest innovations at Brasilplast

Arkema offers the plastics industry an extensive range of products for the construction, automotive, packaging and consumer good applications. Brasilplast enables Arkema to showcase the latest innovations from its functional additives, functional polyolefins, technical polymers and fluoropolymers ranges.

<i>Family products/Applications</i>	New products	
<i>PVC additive. PVC windows application.</i>	Durastrength [®] 360, the first grade in a new range of « composite » impact additives for PVC window profiles.	
<i>Sealing resin for lidding. Packaging applications.</i>		Lotryl [®] Bestpeel, a new multipurpose sealing resin for easy-peel lidding.
<i>Bio-based transparent polyamide. Optical, consumer goods applications.</i>	Rilsan [®] Clear G830 Rnew, the first bio-based transparent polyamide	
<i>Bio-based Thermoplastic Electronics, sports, consumer goods applications.</i>		Pebax [®] Rnew, the first engineering thermoplastic elastomer rangemade from renewable resources

<p>Biobased hotmelt adhesive. Automotive textile applications.</p>	<p>Platamid® Rnew: the first 100% biobased Hotmelt Adhesive</p>	
<p>CPVC plastics. Consumer goods, packaging, construction applications.</p>		<p>Lucalor® CPVC for transparent applications: the first highly transparent CPVC comes to the market</p>
<p>Fluoropolymers. Metals coatings applications.</p>	<p>Kynar® ADX: an innovative primerless PVDF powder coating</p>	
<p>Fluoropolymers. Metals coatings applications.</p>		<p>Arkema eliminates fluorosurfactants from Kynar 500® PVDF</p>
<p>Fluoropolymers. Metals coatings applications.</p>	<p>Arkema's Kynar Aquatec®: the easy-dry coating</p>	

A global chemical company and France's leading chemicals producer, Arkema consists of three businesses: Vinyl Products, Industrial Chemicals, and Performance Products. Arkema reports sales of 5.6 billion euros. Arkema has 15,000 employees in over 40 countries and six research centers located in France, the United States and Japan. With internationally recognized brands, Arkema holds leadership positions in its principal markets.

If you require further product information or photos, please contact:

Sybille Chaix, press contact

Tel. : +33 1 49 00 70 30 - sybille.chaix@arkema.com

Carlos Henrique M. Schulz, communication contact in Brasil

Tel : 55 11 2148-8530 – carlos.henrique.schulz@arkema.com

*PVC additive.
PVC windows application.*

Durastrength® 360, the first grade in a new range of « composite » impact additives for PVC window profiles

Arkema presents its latest innovation in the field of acrylic impact modifiers for rigid PVC profiles, Durastrength® 360, the first grade in a new range of « composite » impact additives for PVC window profiles.

Durastrength® 360 helps reduce by up to 15% the amount of acrylic modifier in formulations, and therefore offers PVC profile manufacturers superior use value for this type of additive. As well as its high elastomer content, Durastrength® 360 features excellent properties which considerably reduce plate-out in extrusion equipment, and so help cut down the frequency of machine downtime for maintenance and cleaning and significantly improve profile production speed.

Available on the market for several months, Durastrength® 360 has been very well received by profile manufacturers, in particular in the emerging countries of Eastern Europe where it is part of the current growth in the construction market.

Arkema has been present for many years, through its Functional Additives Business Unit, in rigid PVC applications for the building and construction markets with a comprehensive range of Durastrength® acrylic impact modifiers and Plastistrength® processing aids.

With production capacities in Europe and the United States, Arkema holds a leading position in this growth market.

DURASTRENGTH® 

***Sealing resin for lidding.
Packaging applications.***

Lotryl[®] Bestpeel, a new multipurpose sealing resin for easy-peel lidding

Arkema, Europe's leader in functional polyolefins, is launching Lotryl[®] Bestpeel 2407 on the market. This new resin has been specifically formulated to combine three key properties: easy processing, interchangeability of sealing materials, and easy-to-open lidding.

The result of innovation from Arkema's R&D, this new grade has been developed for the manufacture of sealable - peelable lidding on a variety of substrates. Lotryl[®] Bestpeel 2407 is a ready-to-use product which is easy to process with conventional extrusion methods: coating, cast or blown film for lamination, and calendered sheet for thermoforming. Highly versatile, Lotryl[®] Bestpeel 2407 can be used to produce a large number of structures combining paper, aluminum, oriented PA, PET, PE and PP, and incorporates the sealing layer without the need for a solvent.

Its excellent sealing performance can be achieved on a variety of supports, e.g. PET, PP, PS and PVC pots and trays, over a wide temperature range. It ensures gentle and steady peeling and therefore easy opening, and leaves no residue on the edges of pots or trays.

Formulated from an ethylene - methyl acrylate copolymer using a high pressure autoclave process, Lotryl[®] Bestpeel 2407 is highly stable in extrusion, accommodates high coating temperatures, and offers excellent slip properties. It therefore represents genuine progress in the balance between application, processing and performance sought by converters who often face problems when using lidding sealing products.

LOTRYL[®] copolymer resins are ethylene copolymers with a high methyl or butyl acrylate content (18 to 35 %). With properties closer to those of elastomers than polyethylene, they are easy to use and compatible with a large number of polymers. LOTRYL[®] resins are used in many industrial applications, including hotmelt adhesives, polymer modification, cable sheathing, multilayer packaging film, and road bitumen.



LOTRYL[®]

**Bio-based transparent polyamide.
Optical, consumer goods applications.**

Rilsan[®] Clear G830 Rnew, the first bio-based transparent polyamide

Arkema presents its latest development in bio-polyamides, Rilsan[®] Clear G830 Rnew, the first fully transparent bio-based, high performance polyamide designed for the optical market such as spectacle frames.

Rilsan[®] Clear G830 Rnew uses 54% bio-based raw materials, thus contributing to reduce CO₂ emissions. Rilsan[®] Clear G830 Rnew offers the same key benefits such as freedom of design, comfort and durability, as the classic Rilsan[®] Clear G350.

The main consumer advantages of Rilsan[®] Clear G350 can also be found in Rilsan[®] G830 Rnew: excellent transparency and whiteness, flexibility, light weight, high elasticity return, remarkable toughness, and excellent chemical resistance.

In addition to these end-users benefits, Rilsan[®] Clear G830 Rnew features outstanding processing properties which afford major economic gains.

Rilsan[®] Clear G830 Rnew is a unique solution that fits perfectly within an eco-design concept.



Rilsan[®] Clear G830 Rnew is the latest innovation from Arkema's bio based high performance Polyamides. Rilsan[®] PA11, Pebax[®] Rnew and Platamid[®] Rnew have already amply demonstrated Arkema's ability to propose innovative bio-based solutions for highly demanding markets.

**Bio-based Thermoplastic
Electronics, sports, consumer goods applications.**

Pebax[®] Rnew, the first engineering thermoplastic elastomer range made from renewable resources

Arkema is launching the first complete range of engineering thermoplastic elastomers with a 20 to 90% renewable carbon content.

For the past 60 years, Arkema has been the world leader in Amino 11 chemistry, a unique chemical processed from a vegetable source - castor oil - used to produce Rilsan[®] PA11. This natural vegetable oil is derived from a non-edible and non-GMO crop, and therefore does not compete with food production. The Pebax[®] Rnew range is based on this particular chemistry. The use of Amino 11 chemistry in this new Pebax[®] formulation reduces fossil energy requirements as well as emissions of CO₂, the main greenhouse gas.

The Pebax[®] Rnew family (25D to 72D hardness) made from renewable resources boasts the same outstanding properties as Pebax[®], including light weight, flex fatigue resistance, spring-back and elasticity return. It retains these outstanding features over a wide temperature range.

Pebax[®] Rnew perfectly fits into the product eco-design concept that satisfies the environmental awareness of consumers, while maintaining the existing high performance of Pebax[®].

This new Pebax[®] range will meet the needs of Arkema's customers (e.g. electronics, sports, automotive, etc.) who are looking for high value products, while engaging in environmentally sound manufacture as the material they will use has been processed from vegetable resources.



**Biobased hotmelt adhesive.
Automotive textile applications.**

Platamid® Rnew: the first 100% biobased Hotmelt Adhesive

Arkema, one of the world leaders in copolyamide Hotmelt Adhesives, introduces Platamid® Rnew, a unique new product fulfilling two major challenges of the adhesive market: lower emissions and sustainable chemistry.

The automotive industry has been working for years to reduce emissions of volatile organic compounds in the passenger compartment, i.e. the evaporation of gases from the materials used for the construction of car interiors (VOCs and fogging). Other markets in Technical Textiles are following this trend.

In line with the Kyoto Protocol, the challenge for the chemical industry as a whole is to provide sustainable chemistry. This is driven primarily by the objective to limit CO₂ emissions into the atmosphere. Using renewable resources is one of the key factors in attaining this goal. The raw materials of Platamid® Rnew are derived from vegetable oil feedstock, and thus 100% renewable organic carbon as per ASTM D6866 (Standard Test Methods for determining the Biobased Content of Natural Range Materials Using Radiocarbon and Isotope Ratio Mass Spectrometry Analysis).

Platamid® Rnew is a high performance thermoplastic hotmelt adhesive developed for highly demanding and durable applications. Industrial scale production has been demonstrated successfully. Platamid® can be processed into webbing, netting, film and filament using standard equipment and conditions. Application developments are underway in cooperation with our customers.

Platamid® Hotmelt Adhesives are an excellent solution to highly demanding bonding challenges in a large number of markets, including textile interlining, technical textiles, construction, electronics and automotive.

Platamid® has been used for over 40 years in applications where durability and strength matter.



**CPVC plastics.
Consumer goods, packaging, construction applications.**

**Lucalor[®] CPVC for transparent applications:
the first highly transparent CPVC comes to the market**

To meet the expectations of customers in terms of transparency for packaging, food, consumer goods and construction, Arkema is launching a very clean and transparent product, the first CPVC (chlorinated PVC) grade to combine transparency with CPVC features: high fire resistance, very low smoke release, and high thermal resistance.

In order to achieve a transparent CPVC, Arkema's marketing and R&D teams singled out transparency as the critical issue throughout the production chain. The outcome is a special Lucalor[®] CPVC resin grade which has been improved upon using an Arkema patented process.

All the main properties of the Lucalor[®] CPVC resin grade have been maintained:

- High fire resistance (rated B as per Euroclasses standard)
- Low smoke release (rated S1 as per Euroclasses standard)
- High thermal resistance (105° vs 80° for PVC)

The high transparency of this new Lucalor[®] CPVC makes it suitable for use on a large scale in new applications requiring transparency, coupled with the following added value:

- Improved bond strength
- High color stability
- Good resistance to distortion
- Superior printability vs PVC
- High "Vicat" test values for extreme thermal conditions (110-115°)
- Resistance to pressurized hot water

Formulated in blends, Arkema's chlorinated PVC resins ensure that finished products comply with the most stringent of standards in terms of heat resistance, flame resistance, and reduction in smoke emission.

Transparent CPVC is specially suited to vinyl applications, including transparent pipes for industry, consumer goods, sterilizable (food grade) packaging, oven-proof packaging, pipes and window profiles, and film for credit and cell phone cards. In this last application, transparent CPVC provides a perfect answer to the latest "fashion in cards" trend for a transparent colored film.

**Fluoropolymers.
Metals coatings applications.**

Kynar[®] ADX: an innovative primerless PVDF powder coating

After developing a revolutionary patented technology, Arkema is now able to offer commercially a new range of functionalized reactive polyvinylidene fluoride (PVDF) polymer powders under the trade name Kynar[®] ADX series.

This new modified PVDF product range opens numerous application possibilities by enabling direct adhesion to metal substrates (steel, aluminum, copper) after standard surface preparation. It allows the manufacture of composite structures combining the properties of Kynar[®] with those of these various support materials.

The Kynar[®] ADX product range has been developed to allow primerless powder coating by the standard methods:

- Dip coating in fluidized bed,
- Electrostatic spraying,
- Hot spraying,

Applications using metal coatings in extremely harsh chemical or high temperature environments, are emerging in diverse fields as Chemical Processing Industry (CPI), offshore and cables.

Kynar[®] ADX resins retain the same excellent melt and solvent processability as standard Kynar[®] resins. Kynar[®] ADX features similar thermal, UV and chemical resistance, high mechanical performance and high permeation barrier properties as the other well-known Kynar[®] resins.

KYNAR[®] ADX

**Fluoropolymers.
Metals coatings applications.**

Arkema eliminates fluorosurfactants from Kynar 500[®] PVDF

In line with its voluntary product stewardship approach, Arkema has developed a new process that eliminates fluorosurfactants from its Kynar 500[®] PVDF.

Arkema is introducing Kynar 500[®] PVDF (polyvinylidene fluoride) resin made using a new fluorosurfactant-free (FSF) process. In 2006, perfluorinated surfactants, such as perfluorooctanoic acid (PFOA), have come under scrutiny by the U.S. Environmental Protection Agency (EPA), and Arkema decided to launch a substitution research program in order to gradually reduce the amounts of fluorosurfactants used in its PVDF range.

“As the leader in this industry, we wanted to proactively develop a way to completely eliminate the use of these fluorinated surfactants in our manufacturing process,” said Erwoan Pezron, Arkema’s Worldwide Managing Director for Fluoropolymers. *“The market has come to expect leadership from Kynar 500[®] PVDF, the most recognized name in coating and film formulations. As the originator of high performance PVDF resins for architectural markets, our customers were looking to Arkema for substitutes. We are proud to continue to lead this market by offering a wide palette of high durability sustainable fluorosurfactant-free coating resins, including Kynar 500[®] and our recently commercialized Kynar Aquatec[®] platform”* said Kirsten Makel, Arkema’s North American General Manager for Fluoropolymers.

Arkema’s recently completed expansion of its Calvert City, Kentucky, facility in the United States and its recently announced Changshu, China plant will feature this new technology in its production of Kynar 500[®] PVDF. Arkema is now switching to its fluorosurfactant-free Kynar 500[®] PVDF, and is providing dedicated technical support for its formulator customers to ensure optimum application of the product.

For over 40 years, finishes based on Kynar 500[®] PVDF resin have helped protect commercial, industrial, and residential buildings around the world. Kynar 500[®] PVDF is a special grade of fluoropolymer resin used by licensed industrial paint manufacturers as the base resin in long-life coatings for aluminum, galvanized steel, and aluminized steel. Applications include metal roofing, siding, window- and door-frames, wall panels and other miscellaneous metal trims and components.

Kynar 500[®]

www.kynar500.com

**Fluoropolymers.
Metals coatings applications.**

Arkema's Kynar Aquatec[®]: the easy-dry coating !

Arkema presents a new waterborne fluoropolymer resin: Kynar Aquatec[®]: this innovative product offers the durability and performance of traditional Kynar[®] coatings, whilst drying at ambient temperature.

Developed from Arkema's research, Kynar Aquatec[®] is an emulsion of a Kynar[®] PVDF copolymer with an acrylic resin. Kynar Aquatec[®] coatings are water-based formulations that do not need to be baked - an ambient air-dry is all that is needed. They can be used on a variety of substrates, including metal, PVC, wood, textile, elastomers, etc.

Kynar Aquatec[®] emulsions are formulated into high-performance paints using formulating guidelines that are similar to those employed for typical acrylic emulsions. In addition, the aqueous nature of the emulsion means that the system is low in volatile organic compounds.

Kynar Aquatec[®] has the advantage of very low VOCs' (volatile organic compounds).

Manufactured with a technology developed from Kynar[®] coatings, Kynar Aquatec[®] features the same characteristics and properties as other Kynar[®] coatings. :

- Extreme weatherability,
- Excellent dirt shedding,
- Superb mildew resistance,
- Excellent stain resistance,
- Outstanding water repellency,

The ease of processing and the remarkable properties of Kynar Aquatec[®] are opening up new application possibilities for protective surface coatings.



Kynar Aquatec[™]