

# INVESTOR 2012 DAY

PARIS, FRANCE SEPTEMBER 18, 2012





# Specialty Polyamides High Performance Materials segment

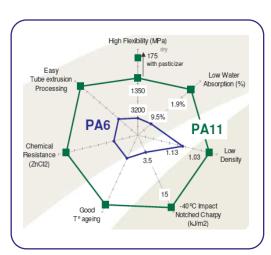
Pierre CHANOINE
Executive VP

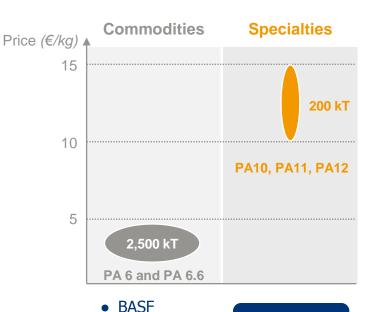


# **Specialty Polyamides market**

### Transformational project: integration of Hipro and Casda in China

- #1 worldwide
- Niche market: 200 kT
- Market share: 35%
- Main competitors: Evonik, Ems, Ube
- Superior properties for high value niche applications





DSM

Dupont

Invista

Solvay

Lanxess



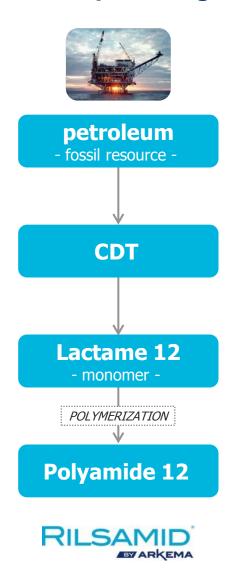
Arkema

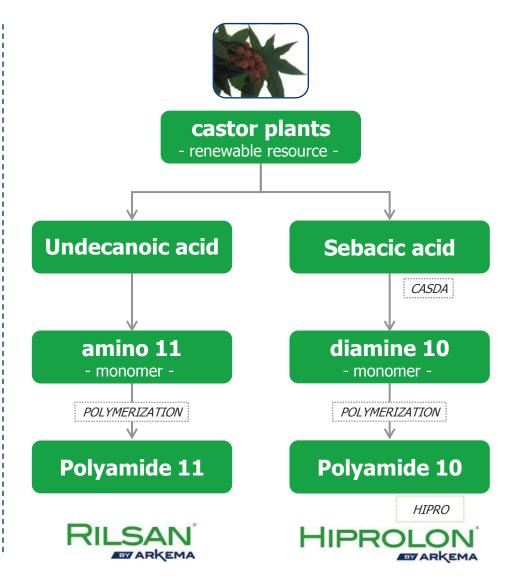
Evonik

Ems

Ube

# Unique range of long-chain polyamides







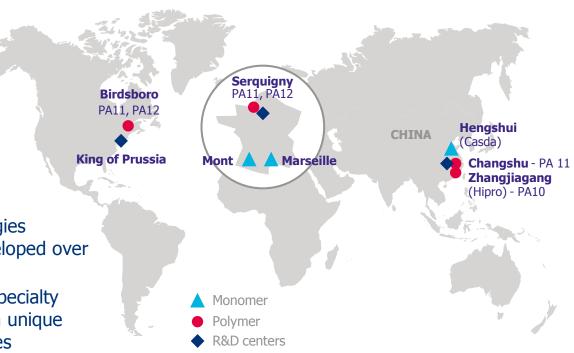
# **Arkema's Specialty Polyamides business**

### Major achievements

- Successful repositioning on higher value applications
  - Oil & gas
  - Electronics
  - Lightweight materials
  - Sport
- Acquisition of Hipro/Casda
- Restructuring in Europe

### Competitive advantages

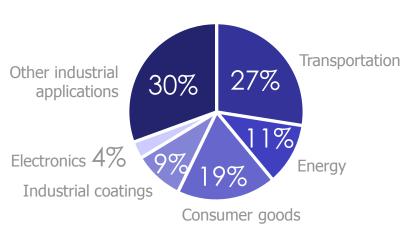
- Proprietary advanced technologies and applicative know how developed over 50 years
- Only player with full range of specialty polyamides (PA10, 11, 12) with unique position in bio-based polyamides
- Sole producer of bio-based polyamide 11
- Global industrial footprint
- Premium brands (Rilsan®, Pebax®)
- Density of innovation projects





### Main end-markets

### Sales by end markets



### **Key growth drivers**

- Transportation
  - Lightweight materials for metal replacement
- Energy (off shore)
  - Development of non conventional recovery of oil
- Consumer goods (sports, cosmetics)
  - Increasing standard of living
  - Top of the range products

### **Transportation**

Fuel lines
Air brake systems



### **Energy**

Flexible pipes for deep off shore oil recovery



### **Consumer goods**

Sport (shoes, ski boots, etc..)







### **Industrial coatings**

Powder coating Adhesives (hot melt)





### **Electronics**

Covers for laptops and mobile devices



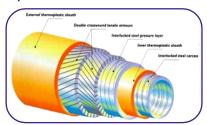




# Two examples of high value applications

# Flexible pipes for deep off shore oil recovery

- Rilsan®: material of choice for the barrier to gas and oil layer
  - Chemical resistance
  - High thermo-mechanical properties
  - Flexibility



- Supply star award from Technip in 2012 for the second time
- Growth drivers
  - Development of non-conventional production technologies
  - Rehabilitation of existing pipeline network

Rilsan® HT: 1<sup>st</sup> high temperature specialty polyamide to replace metal in tubing in automotive

 Combining outstanding properties with cost efficiency



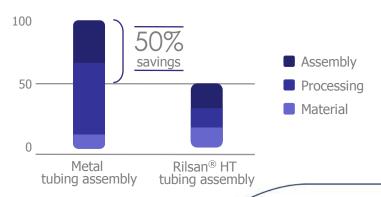




Previous technology: metal + rubber assembly

New technology: flexible high temperature PA11 pipes

### Component / system cost





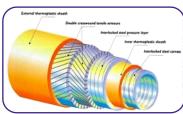
# **Strategic lines**

- Take advantage of full range of Specialty Polyamides (PA10, 11, 12)
  - The right product for the right application
  - Unique position in bio-based high performance polymers
- Leverage Hipro-Casda acquisition
  - Accelerate Hipro development leveraging Arkema's strong applicative know-how with on-going capacity expansion project
  - Take advantage of fully integrated chain
- Accelerate development in higher growth countries
  - Asia: integration and development of Hipro-Casda
  - South America: support key customers developments in rapidly growing economies
- Focus innovation on high value applications
  - Transportation: metal replacement
  - Oil & gas
  - Bio-polymers in consumer goods



# **Unlock Hipro and Casda potential**

- Casda Biomaterials: take advantage of fully integrated value chain
  - Worldwide leader in sebacic acid (55% market share)
  - Strong base for future growth of PA10
  - Enhance business value with external sales to other bio-polymers producers
- Hipro Polymers: leverage Arkema strong applicative know-how in specialty polyamides to achieve rapid expansion
  - On-going project to triple PA10 capacity in China (expected start-up 4Q'12)
  - Global product portfolio enhancement
    - Shift PA11 / PA12 toward very high value applications
    - Develop positions of PA10 range on traditional applications













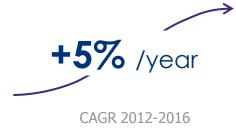


# Specialty Polyamides key take-aways

- **✓** Worldwide leader in Specialty Polyamides
  - Full range of products (PA10, 11, 12)
  - Only player with bio-based PA10 and PA11
  - Only player with global industrial footprint
- Market growth driven by increasing needs for highly technical solutions
  - Deep off shore
  - New energies
  - Metal replacement in transportation
- Arkema's future growth supported by development of recently acquired Hipro/Casda
- Strong earning resilience with combination of high growth and high value











### **Disclaimer**

The information disclosed in this document may contain forward-looking statements with respect to the financial condition, results of operations, business and strategy of Arkema. Such statements are based on management's current views and assumptions that could ultimately prove inaccurate and are subject to risk factors such as among others, changes in raw material prices, currency fluctuations, implementation pace of cost-reduction projects and changes in general economic and business conditions.

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Financial information for 2011, 2010, 2009, 2008, 2007, 2006 and 2005 is extracted from the consolidated financial statements of Arkema. Quarterly financial information is not audited.

The business segment information is presented in accordance with Arkema's internal reporting system used by the management.

The definition of the main performance indicators used can be found in the reference document filed with the French Autorité des Marchés Financiers and available on www.finance.arkema.com



