

# New Mid-Term Business Plan “Grow Globally”

September 24, 2008

## I . Review of Current Mid-Term Business Plan

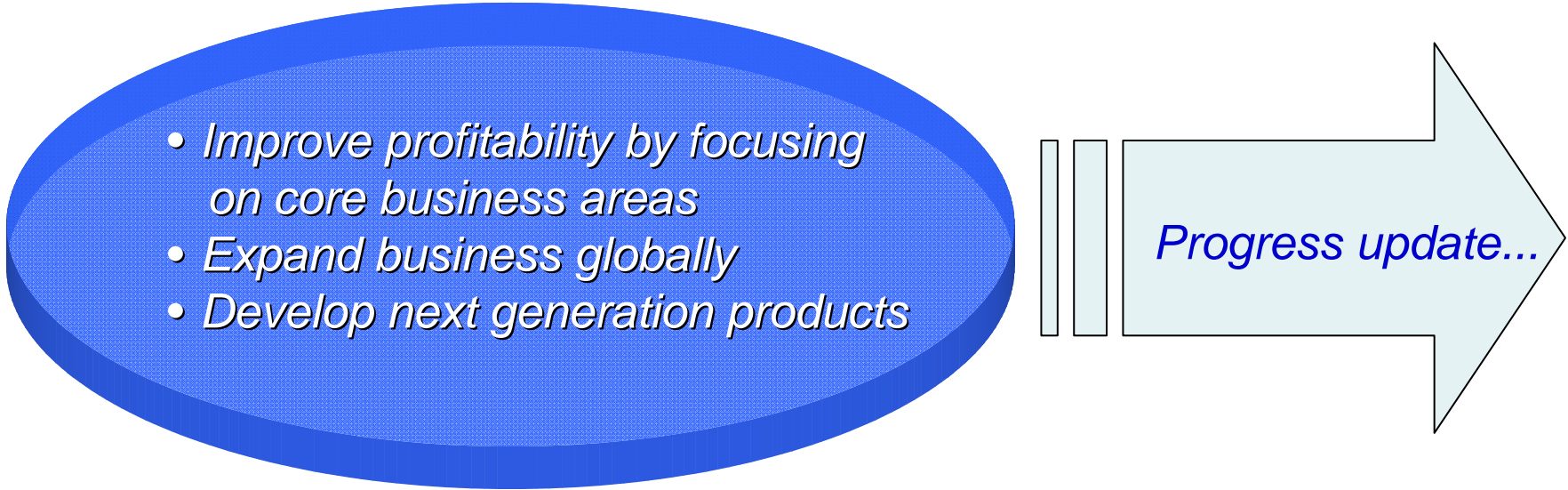
## II . Outline of New Mid-Term Business Plan 'Grow Globally'

Corporate Vision

Financial Targets

Growth Drivers

## Secure growth through business strategy outlined in the new corporate philosophy, established along with the corporate name change

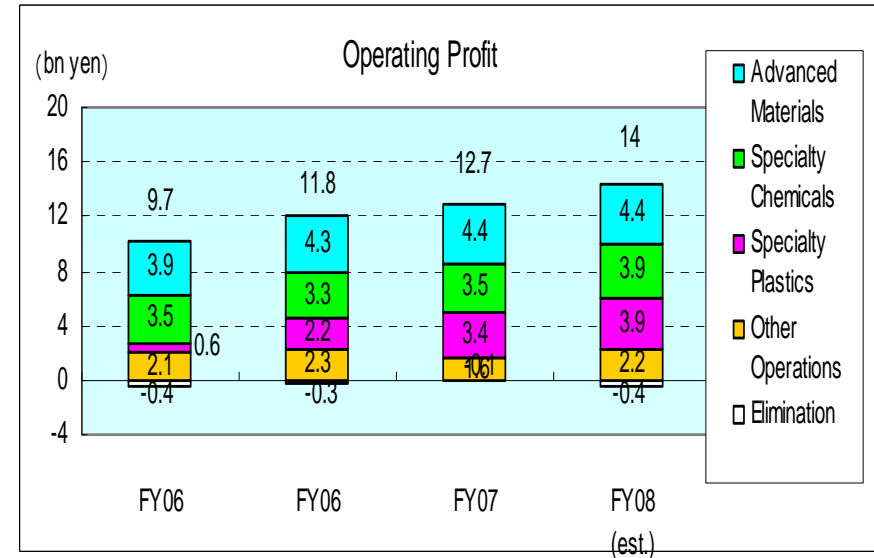
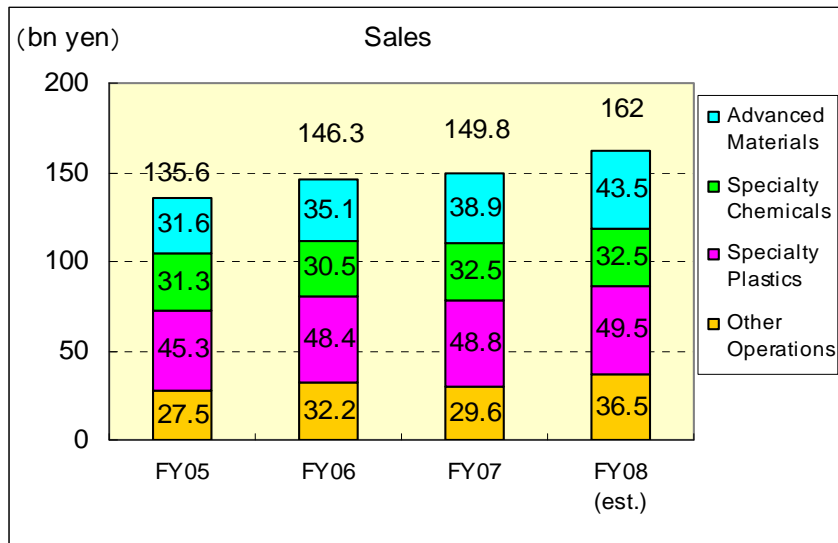
- 
- *Improve profitability by focusing on core business areas*
  - *Expand business globally*
  - *Develop next generation products*

*Progress update...*

- Plan covers FY2005 ~ FY2008
- Rolling plan - reviewed and updated each year until FY2008 to reflect changes in business environment

# Review of Current Mid-Term Business Plan: Progress Update

KUREHA CORPORATION



## Core profit driving businesses:

**Advanced Materials:** Carbon fibers, PPS resin, PVDF resin (volume increase)

**Specialty Chemicals:** *Kremezin* therapeutic agent for chronic kidney disease, agricultural fungicide (volume increase)

**Specialty Plastics:** Household products, commercial-use packaging materials (profitability improvement)

## Aggressive capital expenditure:

### Cumulative capital expenditure:

52.8 billion yen (FY2005 - FY2008)\*

### Depreciation costs:

7.9 billion yen (FY2005)

→ 10.8 billion yen (FY2008)\*

(\* Estimate for FY2008)

**KUREHA**

# Review of Current Mid-Term Business Plan: Achievements and Non-Achievements

KUREHA CORPORATION

Steady growth of existing products; underachievement in area of product development and commercialization

## Aggressive capital expenditure

⇒ PPS, carbon fiber, PVDF, *Kremezin*, utility supply facilities

## Collaboration with business partners

⇒ Agricultural fungicide (diversified operations in US and Europe), *Kremezin* (diversified in U.S. and Europe)  
PVDC compound for food packaging (diversified in China)

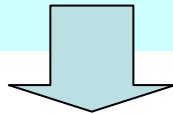
## Streamlining efforts

⇒ Improve profitability for specialty plastics products, streamline logistics operations

## Establish affiliate relationships and capital alliances

⇒ Including PGA (U.S.), carbon fiber (China and U.S.), advanced materials

Preparation for global growth steadily progressing



*Challenge: Accelerate business globally*

## Delay in developing and commercializing products

### **PGA**

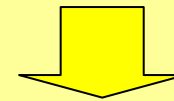
→ Decision on commercialization made in December 2007  
Ground-breaking ceremony held in April 2008

### **Product marketing (Besela, anti-static resin)**

→ Targeted sales volume not reached

### **Product commercialization (heat-absorbing materials for windows, anti-HIV agent, anti-pancreatic cancer antibody agent)**

→ Review development schedule or halt development



Reflect on inadequate forecasts when pursuing new business operations

## Strengthen corporate governance:

- Supervisory and executive responsibilities segregated (April 2007 onwards)
  - Streamlined Board of Directors and appointed external directors  
(Ten members were appointed at the General Meeting of Shareholders in June 2007, including two external members)
- Risk Management Committee established to identify and manage risks
- Internal control system enhanced to ensure appropriateness of financial reports
- Established Information Management Committee to ensure timely deliver of information and management of information security

## Enhance quality and safety management system:

- Lessons learnt from fire at PPS plant and voluntary recall of some fishing line products. Further review and enhancement of quality and safety management procedures

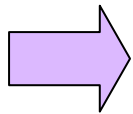
# Outline of New Mid-Term Plan

## 'Grow Globally'

KUREHA CORPORATION

### Background:

- Global economic growth is slowing (Growth continuing in emerging economies, but stalling in developed economies.) Expectation for economic development. However, concerns remain over resource shortages and environmental impact
- Corporate sustainability and growth founded on considerations for society and the global environment
- Japanese manufacturers can only survive by producing unique products



Announce Kureha's future direction internally and externally and commit to realizing goals. Introduce new mid-term plan. Achieve targets by end of FY 2012

### Concept:

- No borders to solutions and markets

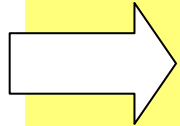
*Growth through expansion of global business operations*

Always act as a global corporate citizen, recognizing corporate social responsibilities and focusing on environment and needs of daily life

**KUREHA**

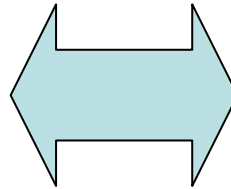
New mid-term business plan aims to realize:

- *Global growth*
- *Sustained results in new business areas*

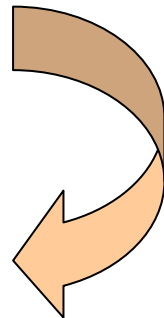
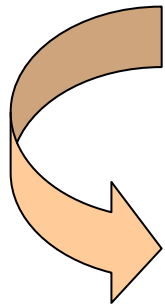


Meet numerical targets through implementation of the above strategies

Change in socio-economic environment



Adapt through harmonization with global environment



Conduct annual review to verify progress and scenarios towards achieving goals

## Corporate Philosophy:

- We treasure people and the natural environment
- We constantly evolve through innovation
- We contribute to society by developing beneficial products

## Implementation

Improvement of  
**Environmental Value**

Improvement of  
**Economic Value**

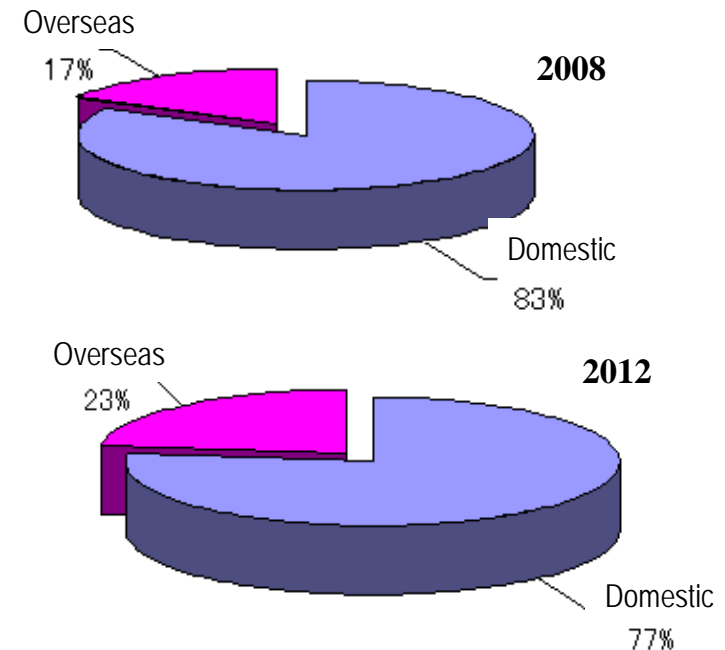
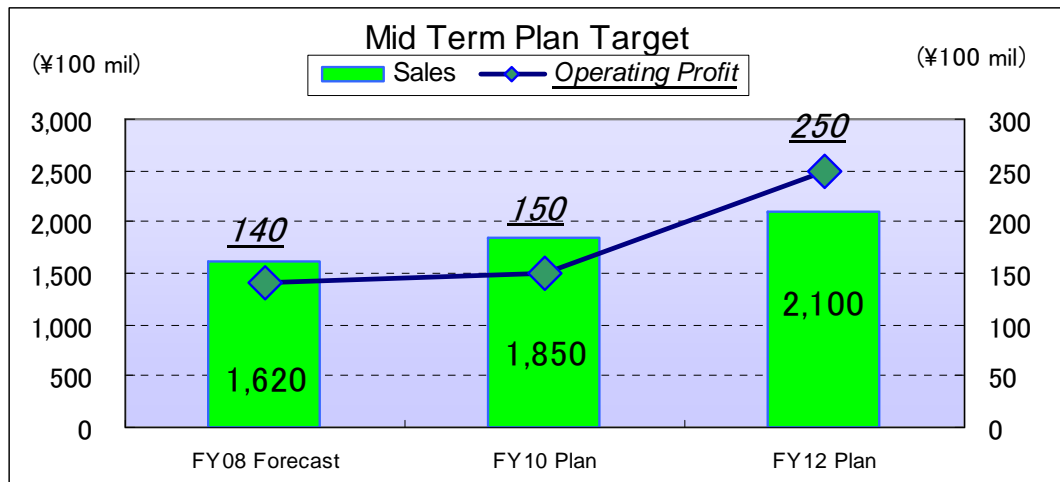
Improvement of  
**Social Value**

Improvement of  
**Corporate Value**

**KUREHA**

# Financial Targets

KUREHA CORPORATION



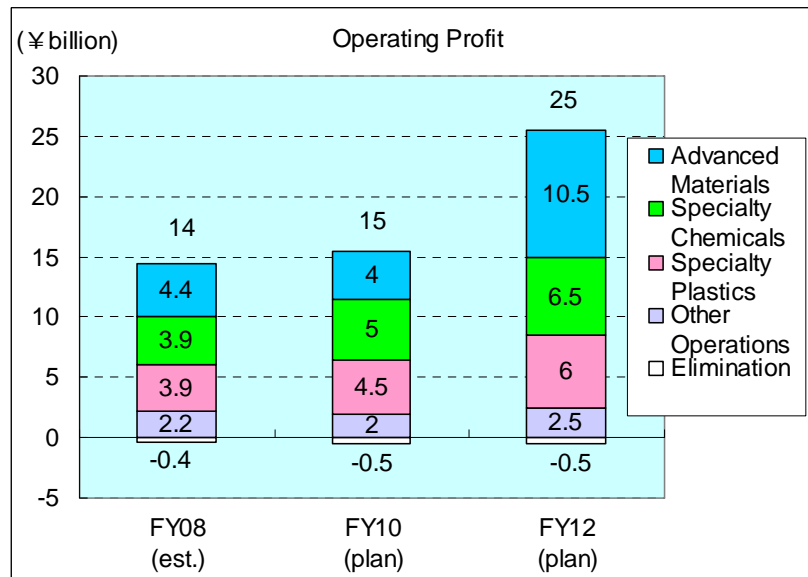
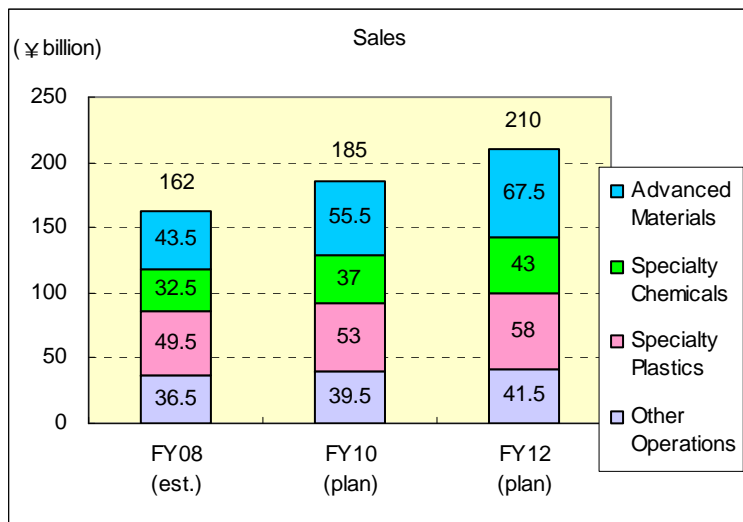
- Capex: 85 billion yen between FY2008~FY2012 (cumulative)
- R&D: 35 billion yen during FY2008~FY2012 (cumulative)
- Depreciation: 10.8 billion yen in 2008, 15.5 billion yen in FY2010, 14.5 billion yen in FY2012
- ROA: Over 10% in FY2012
- Shareholder returns: Aim to provide stable and continuous dividend

Based on: Crude oil \$110 / barrel, exchange rate 105JPY/\$, 155JPY/€

**KUREHA**

# Targets (by segment)

KUREHA CORPORATION



## Increase Sales and Operating Income

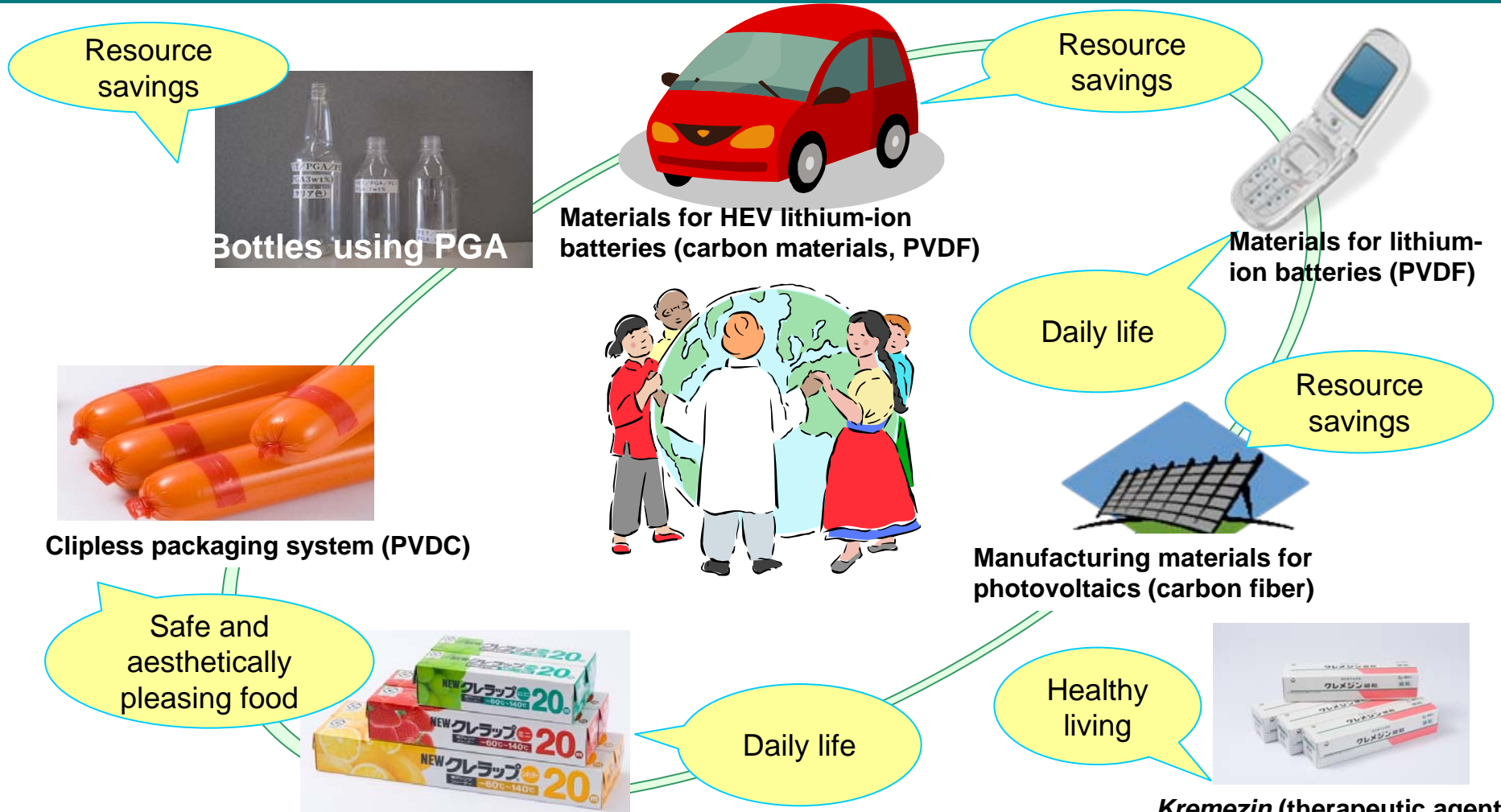
**Advanced Materials:** PGA plant to begin operations in summer 2010; carbon fiber – staged upgrade planned of facilities in Japan, China and U.S.; PVDF – facilities to be upgraded by FY2010

**Specialty Chemicals:** *Kremezin* – enhanced operations from spring 2009, focused on domestic expansion and launch of sales in U.S. and Europe by 2012

**Specialty Plastics:** New company in Vietnam for commercial use packaging materials to be established in spring 2009; strengthen cost competitiveness; accelerate operations globally

**KUREHA**

# Growth Drivers



Resource savings



Bottles using PGA

Resource savings



Materials for HEV lithium-ion batteries (carbon materials, PVDF)

Daily life



Materials for lithium-ion batteries (PVDF)

Resource savings



Clipless packaging system (PVDC)

Safe and aesthetically pleasing food



Manufacturing materials for photovoltaics (carbon fiber)



Daily life

Healthy living



Kremezin (therapeutic agent for chronic kidney disease)

**Solutions that are beneficial to the global environment and people's daily lives**

**KUREHA**

## ➤ **PGA (polyglycolic acid) resin**

- High level of impermeability to gases such as oxygen and carbon dioxide. Development underway for use in carbonated drink bottles
- Enables extended product shelf-life and reduced use of resins extracted from crude oil
- Commercial operations due to begin in summer 2010
- Evaluation for use in other areas including surgical suture also underway

## ➤ **Pitch-based carbon fibers**

- Thermal resistant materials to be used in silicon wafers for semiconductors and solar power equipment. Kureha's carbon fiber materials currently enjoy a 50% market share and continue to experience growth in demand
- Annual production capacity at Kureha's Iwaki Factory to be increased to 1,450 tonnes by spring of 2009 and to 1,800 tonnes by 2012. By 2012, processing capacity will be doubled at Iwaki Factory and tripled at Kureha Chemicals Shanghai Co., Ltd.

## ➤ **PVDF resin (lithium-ion battery binder application)**

- PVDF resin has seen increased demand for use in lithium-ion rechargeable battery binders, used in mobile phones and PCs as well as electric tools and bicycles, and demand is expected to grow further. Kureha currently holds 70% global market share
- Supply request received from battery manufacturer planning to expand production capacity
- Evaluation process underway with auto and battery manufacturers for application in lithium-ion batteries used in hybrid-electric vehicles (HEVs)
- Production capacity (also for non-battery applications) at Iwaki Factory to be expanded by 2010

## ➤ **Negative-electrode material for Hybrid-Electric Vehicle batteries**

- Kureha's hard carbon materials' input-output characteristics represent a competitive edge
- Collaboration between research and development experts to deliver materials targeted to meet specific market needs
- Evaluation process underway with auto and battery manufacturers
- Supply structure being established with the aim of initial supplies beginning in FY2010

## ➤ ***Kremezin*, therapeutic agent for chronic kidney disease**

- Spherical carbon adsorption mechanism absorbs toxic agents in digestive tract and enables excretion from the body
- Helps to improve uremia symptoms and delay dialysis induction
- Alleviates burden on the patient and helps to reduce medical expenditure
- In the Japan Kidney Association's "CKD Treatment Guide" released last year, *Kremezin* is recommended as an oral absorbent therapy. Prescription rates are increasing
- Phase 3 clinical trials in U.S. and Europe by Tanabe Mitsubishi Pharma conducted in gradual stages from summer 2007
- Tanabe Mitsubishi Pharma expects to receive product approval in 2011 and to start marketing in 2012
- Measures to expand production capacity at Iwaki Factory underway with upgraded operations due to begin in spring 2009

## ➤ ***Krehalon*, commercial food packaging film**

- Aim to enhance competitiveness and expand global operations
- Manufacturing facility in Vietnam to begin operations in spring 2009. Production capacity to double from current levels by 2010
- PVDC film and multilayer shrinkable films to be manufactured and marketed
- Basis for development of market for sausage products using *Krehalon* exists in South East Asia and India. Kureha aims to cultivate market in collaboration with local food companies
- Expand global operations for food packaging films from existing bases in Japan, Europe and Vietnam
- Relocate production for domestic market in order to cut costs and enhance competitiveness

## ➤ **Secure profitability of household products**

- Continued efforts to improve user convenience
- Replacement of metal cutting blade with bio-degradable plastic blade in progress for *New Krewrap* (to be completed within FY2008)
- Enhance brand and user satisfaction through product improvements

## Commercialization Assistance

- Focus on application development for the launch and expansion of PGA business (for use in carbonated drinks bottles)
- Materials for use in hybrid electric vehicles
  - Binder for lithium-ion batteries (PVDF resin)
  - Negative-electrode materials (activated carbon)

## Exploratory Research

- R&D specific to fundamental technologies and specialized fields
  - Including high-functionality materials, functional processing products, drug absorption mechanisms

Contribute to the global environment  
and people's daily lives

**“Grow Globally”**