

# Emamou

Portfolio. Recycled Plastic Resins



Emamou.com

# EMAMOU & THE ENVIRONMENT



# Societal Struggles:

- Society struggles to use resources sustainably and efficiently.
- **Emamou provides solutions for the circular bioeconomy and daily life.**
- So you tackle environmental impacts, grow a long-term business, and we have a healthy Earth to live in!

# Emamou's Mission:

**Emamou provides recycled plastics for a sustainable economy:**

- Reduce greenhouse gas emissions & climate impacts
- Recycle and reuse resources
- Contribute to new jobs and sustainable markets

**Emamou provides sustainability consultation to our customers**

# PLASTICS & EXISTING PROBLEMS



# GENERAL CHALLENGES

## Polluting environment

- 80% of 8 billion Mt of plastics end up in the environment including landfills, oceans, animal guts
- Plastics need up to 1,000 years to decompose in nature



## Regulations

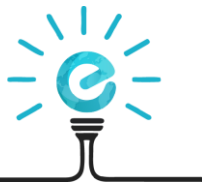
- Reuse and recycling materials for a circular economy mainly in the EU
- Ban of certain single-use plastics in the EU comes into force by July 2021

## Industry

Design and collection for 3R not yet efficient

## Public Acceptance

Pressures of general public for positive changes



# SPECIFIC CONCERNS

## 1. QUALITY:

Recycled plastic materials & products have *low quality*



## 2. ENVIRONMENTAL PROBLEMS

All types of plastics still pollute soil, water, ocean



## 3. RELIABILITY:

Many recycled plastics have *no recognised sustainability certificates* to assure recycling, align with regulation or gain consumers' trust

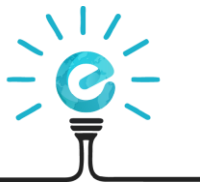


## 4. SUSTAINABLE & LONG TERM BUSINESS

How a sustainable business can be implemented/ what are actions to tackle environmental impacts?



**EMAMOU provides solutions to tackle these concerns!!!**



# OUR SOLUTIONS

## Sustainable & Valued Products

- *100% recycled plastic resins & products*
- *Cost-effective solutions*
- *Compliance to long term sustainability regulations*



## Societal & Environmental Contributions

- *Replacement of harmful single-use plastics*
- *Contribution to circular economy development*
- *Public expectation & promotion of a carbon neutral society*



## Trusted Sustainability Advisor

- *Advices for a sustainable & long term business*
- *Committed services before, during & after purchase*
- ***We value your sustainable partnership!***





# YOUR POTENTIAL GAINS

## Cost savings

- *Sourcing environmentally friendly materials & products with competing price*



## Sustainable Business

- *Consulting sustainability (ESG) performance and reporting*
- *Accompanying your business towards a sustainable growth and wide public acceptance*



## Peace of Mind

- *Being your trusted and committed provider for desired and sustainable products*



**RECYCLED PLASTIC RESINS & PRODUCTS**



# OVERVIEW: RECYCLED PLASTICS

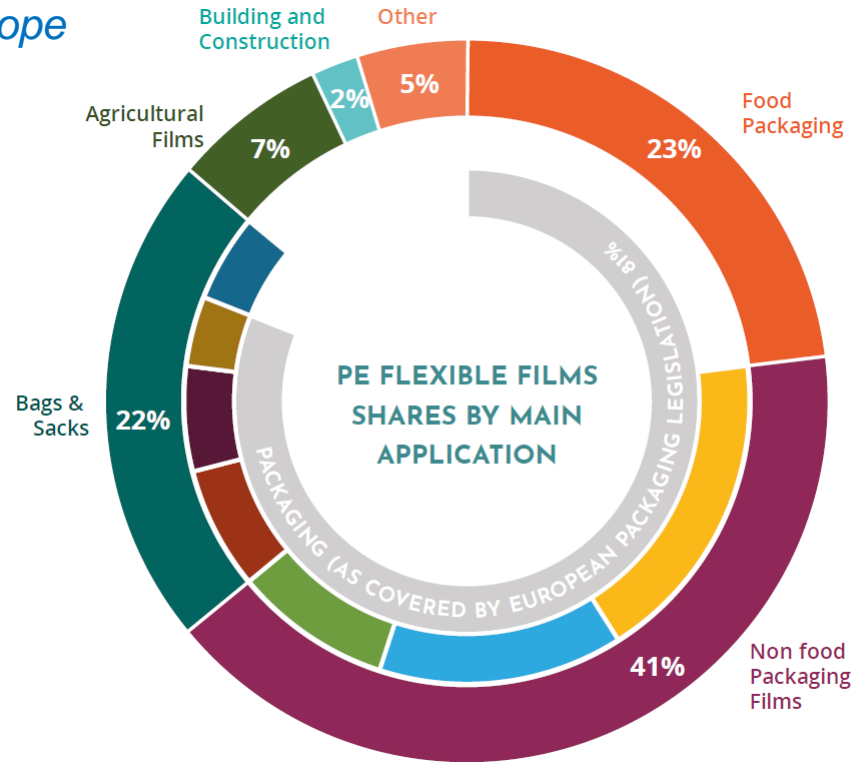


- **Recycled plastics** reduce massively GHG emissions, tackle better environmental impacts.
- **Most widely plastics recycled in the EU:**
  - ❑ *PET: 30%*
  - ❑ *LDPE: 29%*
  - ❑ *HDPE/PP: 20%*

# OVERVIEW: LDPE/LLDPE

Source: Plastic Recyclers Europe

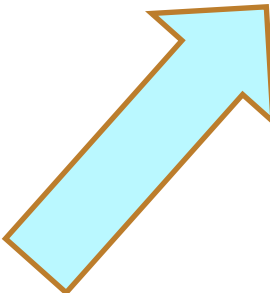
- EU: net importer of resins
- Total consumption: **8.5-9 Mt**
- Total collection for recycling: **5.2 Mt**
- Total output of recycled PE films: **1.8 Mt (20% of total demand)**:
  - Carrier bags (91%,
  - Bags & sacks (refuse, 68%,
  - Building film (56%,



# OVERVIEW: Estimated, PE Recycled Content

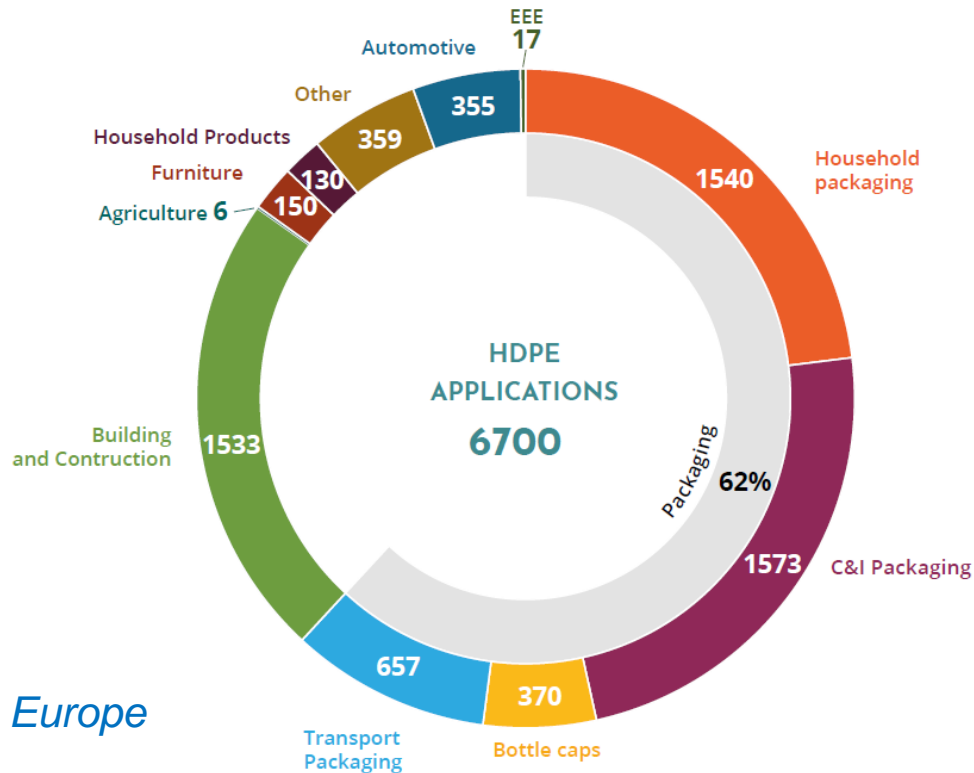
*Source: Plastic Recyclers Europe*

	Current estimate	Future estimate
Film and Foil (Non-food)	12%	40%
Refuse Bags	68%	90%
Other Bags	18%	70%
Agricultural Films	22%	39%



# OVERVIEW: HDPE

- EU: slightly net importer of HDPE resins
- **6.7 Mt consumption/ 0.7 Mt recycling**
- Collection for recycling:
  - Household rigid packaging: **~60%**
  - Commercial rigid packaging: **~30%**

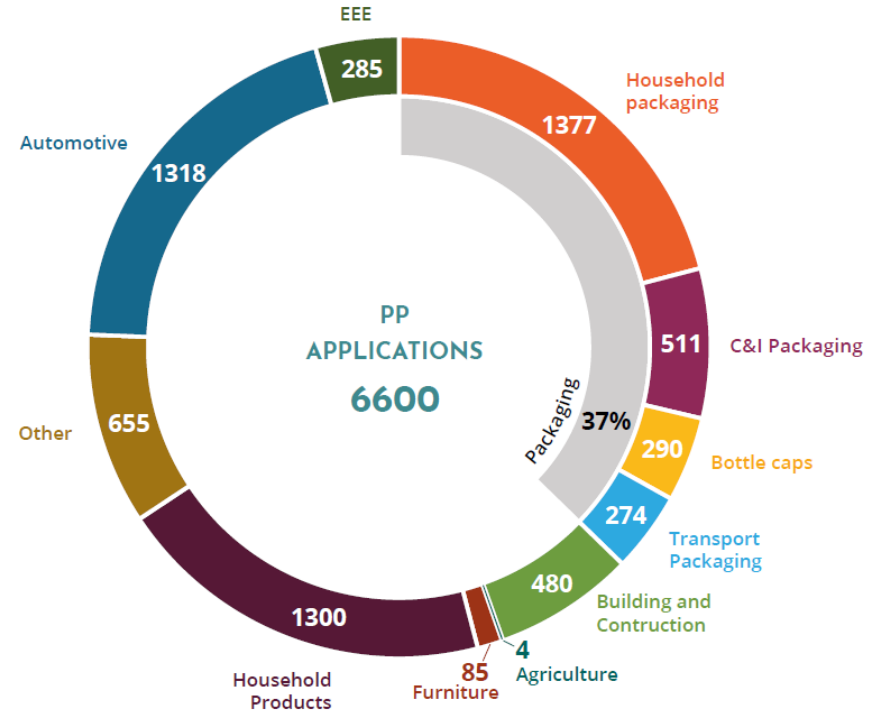


*Source: Plastic Recyclers Europe*

# OVERVIEW: PP

- EU: slightly net importer of HDPE resins
- **6.6 Mt consumption/ 0.5 Mt recycling**
- Collection for recycling:
  - Household rigid packaging: ~40%
  - Commercial rigid packaging: ~60%

*Source: Plastic Recyclers Europe*



# RECYCLED CONTENT CERTIFICATION



## Flexible Packaging

*(versatile packaging)*



## Rigid Packaging

*(for heavy and strong packaging)*



## Consumer Goods



Personal care & Cosmetics  
Commercial industries  
Building & Construction industry  
Transport industry  
Automotive Industry

## Agriculture & Horticulture



Mulch & greenhouse film

# OUR RECYCLED PLASTIC RESINS





# Recycled: ERM.01 (LDPE A1)

LDPE-A1

## Source:

- Post industrial films
- Best quality of PE films

## Applications:

- General packaging films including shopping bags, trash bags, packaging sheets

## Certification:



## Trash Bags:



## Agri & Horticulture Film



# Recycled: ERM.02 (LDPE A2)

LDPE-A2



## Source & Quality:

- Post industrial films
- Very good quality of PE film

## Applications:

- General packaging films including shopping bags, trash bags, packaging sheets

## Certification:



## Trash Bag:



## Packaging Sheet:



# Recycled: ERM.03 (LDPE B)

LDPE-B



## Source & Quality:

- Post industrial films
- Good quality of PE film

## Applications:

- General packaging films including shopping bags, trash bags, agricultural film, packaging sheets

## Certification:



## Trash Bag:



## Packaging Sheet:





# Recycled: ERM.04 (LDPE Yellow)

LDPE-YELLOW



## Source & Quality:

- Post-agriculture films
- Good quality of PE film

## Applications:

- General packaging films including trash bags, agricultural film, packaging sheets

## Certification:



## Agricultural mulching:



## Packaging Sheet:



# Recycled: ERM.05 (LDPE Pink)

LDPE-PINK



## Source & Quality:

- Post-agriculture film
- Good quality of PE film

## Applications:

- General packaging films including trash bags, agricultural film, packaging sheets

## Certification:



## Agricultural mulching:



## Packaging Sheet:



# Recycled: ERM.06 (LDPE Black)

LDPE-BLACK



## Source & Quality:

- Post-agriculture/ industrial film
- Good quality of PE film

## Applications:

- General packaging films including trash bags, agricultural film, packaging sheets

## Certification:



## Trash Bag:



## Packaging Sheet:





# Recycled: ERM.07 (HDPE Black)

HDPE-BLACK



## Source & Quality:

- Post industrial packaging
- Rigid and good quality of PE material

## Applications:

- General packaging products and compression moulding applications

## Certification:



## Bottle cap (compression moulding)

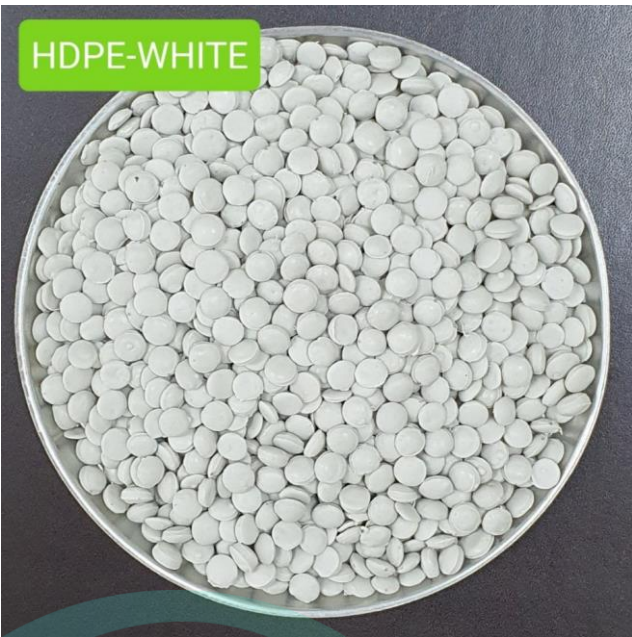


## Packaging Film:



# Recycled: ERM.08 (HDPE White)

HDPE-WHITE



## Source & Quality:

- Post industrial packaging
- Rigid and good quality of PE material

## Applications:

- Blow moulding, raffia tape, yarn, packaging films

## Certification:



## Home care bottles (blow moulding):



## Packaging Film:





# Recycled: ERM.09 (HDPE Injection Black)



Emamou



## Source & Quality:

- Post industrial packaging
- Rigid and good quality of PE material

## Applications:

- Injection and compression moulding, thermo form applications

## Certification:



## Toys (injection moulding):



## Automobile product (thermo form):



# Recycled: ERM.10 (PP Milky)



Emamou



## Source & Quality:

- Post industrial packaging
- Rigid and good quality of PP material

## Applications:

- Raffia tape, yarn extrusion for woven materials

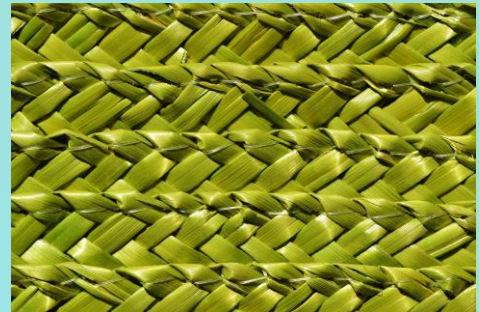
## Certification:



## Yarn rope:



## Woven materials:



# Sustainable Solutions EXPANDED!

## WE ALSO KEEP:

- ✓ Adding **new recycled resins (technical plastics)** to our portfolio
- ✓ Tailoring **recycled resins to your specific requirements** and need
- ✓ Supplying other sustainable materials and products for your business
- ✓ Providing **sustainability advice and comprehensive solutions** to help you grow a sustainable business, comply with long-term regulations, and satisfying societal expectation



# CONTACT US:



[www.emamou.com](http://www.emamou.com)



[info@emamou.com](mailto:info@emamou.com)



+31 618 048 468

