

# CATALOGUE

**DUYTAN** RECYCLING





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# The recycling factory

To minimize the impact of plastic waste to the environment in Vietnam, we build up recycling factory in the late 2019 - 2020 with total invesment cost is 60 million USD. The factory has an area of 65,000m2, located in Lot D2-Duc Hoa Ha Plastic Industrial Complex, Duc Hoa Ha Commune, Duc Hoa District, Long An Province, Vietnam

**DuyTan Plastic Recycling Factory**  
Creates jobs for more than 300 people in the locality and neighbouring provinces. Recycling capacity is more than 100,000 tons/ year when completed. Persuing to goals and vision to become the leading plastic recycling company in Southeast Asia and world-class in terms of quality and capacity, Duy Tan Plastic Recycling Project has approached the State-of-Art recycling technology in the world today.

**To bring the recycle plastic solution to packaging customers**  
Post consumed plastic bottles become a threat to our environment nowadays. With our European technology, PCR bottles are treated & recycled to become clean, food-safe and hygienic plastic materials that comply with current standards. of the world and applied to food packaging production.



ZERO  
WASTE  
FACTORY

No Water Waste  
No Air Waste  
No Industrial Waste

Realizing the ambitious vision of sustainable economy for plastics. DuyTan Plastic Recycling has become the first factory invested globally green finance by HSBC Bank, Standard Chartered Bank, Vietcombank. Ability to meet international fund requirements in the future.



**2019**  
Location studying  
& Construction

**2020**  
Equipment Installation  
& Trial production

**2021**  
Official running  
04.2021

**2020**  
Output: 20,000 ton/year

**2024**  
Output: 60,000 ton/year

**2026**  
Output: 100,000 ton/year



# Our collection activities

We set up collection centers connecting with more than 100 satellite collection stations throughout VietNam.



## 01

Post-Consumed bottles  
100% collected in  
Vietnam



## 02

Set up standards for  
collected bottles



## 03

Collected bottles are  
pressed into bales for  
easy transportation and  
storage



## 04

Auto sorting to  
separate color &  
out-of-spec bottles



## 05

Post consumed bottles  
are grinded into flake &  
conveyed through washing  
line



# rPET

To bring recycled plastic solutions to complete circular economy, Duy Tan Plastic Recycling is fully equipped with European technology to inspire and deliver outstanding rPET quality.

Recycled Polyethylene Terephthalate (rPET) is produced through strictly quality control process. DuyTan Recycling Plastic Company is confident to bring rPET resin for food contact packaging to build a more regenerative economy.

## Recycling Process



### rPET WSS01G/iSS01G

Recycled Polyethylene Terephthalate

Water Bottles  
House Care  
Personal Care

Good Processability  
Low acetaldehyde content  
Uses: Bottles/Jars  
Application: Injection and injection stretch blow molding.

Property	Test method	Value	Unit
<b>Physical</b>			
Intrinsic Viscosity (IV)	ASTM D1238	WSS01G 0.78 ± 0.02 iSS01G 0.8 ± 0.02	dl/g
Bulk density	Internal method	≥ 800	kg/m3
Moisture content	Moisture analyzer	≤ 0.2%	%
Pellet shape	Internal method	oval	
Pellet weight	Internal method	1.5 ± 0.5	g/100pellets
L value		71 ± 3	
b value		-4 ± 2	

Food contact approval  
US FDA 21 CFR Part 177.1630, EN 10/2011, QCVN 12-1:2011 BYT  
Contains no substance on the REACH 211 SVHC list

### rPET WSS03G

Recycled Polyethylene Terephthalate

Filament  
Injection  
Sheet/Film

Good Processability  
Low acetaldehyde content  
Uses: Fiber, Thermoforming  
Application: Injection, injection stretch blow molding, filament

Property	Test method	Value	Unit
<b>Physical</b>			
Intrinsic Viscosity (IV)	ASTM D1238	0.7 ± 0.02	dl/g
Bulk density	Internal method	≥ 800	kg/m3
Moisture content	Moisture analyzer	≤ 0.2%	%
Pellet shape	Internal method	oval	
Pellet weight	Internal method	1.5 ± 0.5	g/100pellets
L value		69 ± 3	
b value		-6 ± 4	

Contains no substance on the REACH 211 SVHC list

### rPET iSS01084G

Recycled Polyethylene Terephthalate

CSD Bottles

Good Processability  
Low acetaldehyde content  
Uses: CSD Bottles  
Application: Injection and injection stretch blow moulding.

Property	Test method	Value	Unit
<b>Physical</b>			
Intrinsic Viscosity (IV)	ASTM D1238	0.84 ± 0.03	dl/g
Bulk density	Internal method	≥ 800	kg/m3
Moisture content	Moisture analyzer	≤ 0.2%	%
Pellet shape	Internal method	oval	
Pellet weight	Internal method	1.5 ± 0.5	g/100pellets
L value		71 ± 3	
b value		-4 ± 2	

Food contact approval  
FDA, EN 10/2011, QCVN 12-1:2001/BYT  
Contains no substance on the REACH 211 SVHC list



# rHDPE

Recycled High Density Polyethylene (rHDPE) is produced through strictly quality control process. Post consumed bottles are sorted by color, flaked, washed, pelletized to produce high quality recycled plastic resin.

## Recycling Process



# rHDPE MBF01

Recycled High Density Polyethylene

House Care  
Personal Care

MBF01 grade has excellent stiffness, heat distortion resistance and good environmental stress crack resistance.  
Use: Bottles.  
Application: Extrusion & Extrusion blow molding.

Property	Test method	Value	Unit
<b>Physical</b>			
Melt Index	ASTM D1238 (190 OC, 2.16kg)	0.3 ± 0.05	g/10min
Density	ASTM D792	0.94 ± 0.01	g/cm3
Tensile Strength (at yield)	ASTM D638	23 ± 2	MPa
Flexural Strength	ASTM D790	270 ± 50	Kg/cm2
Flexural Modulus	ASTM D790	800 ± 100	MPa
Izod Impact	ASTM D256	>490 nonbreak	J/m
%PP	ASTM D5576	Max 5%	%
Filtration (Screen pack)		120 x 3	Mesh
Pellet size		38 ± 5	Pellets/g
<b>Other (visual, odor)</b>			
Color	X-Rite Ci60	Natural L= 64 ± 3 a= 0 ± 2 b= 5.5 ± 2	
Durometer Hardness /Type D (Shore D)	ASTM D2240	55 ± 1	





# Packaging

Our recycled resins are packed with international export packaging standards & palletized.

Fast delivery to local & export customers.



## rPET packaging

1100kgs/ jumbo bags  
22 Tons/ 20'fcl cont



## rHDPE packaging

25kgs/ bag  
12 Tons/ 20'fcl cont  
24 tons/ 40'fcl cont





# Quality management

Quality is one of the most concerns in our operations. Duy Tan Plastic Recycling Company is run by experienced team with good knowledge about recycling. We are confident to bring the best recycled pellets to customers with modern quality control equipments in our lab.

- 01 The most modern European recycling technology in the world
- 02 Certifications issued by prestigious global units
- 03 Strict quality control process with modern testing machines
- 04 Top quality products in Asia and the World



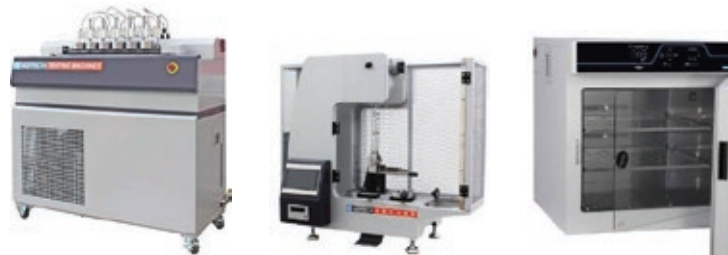
Spectrophotometer    Moisture Analyzertable    Melt Flow Indexer



Universal Testing Machine    Viscometer    AA, Benzene tester



Color assessment table    Microscope    Flake heating oven



VICAT/ HDT Tester    Pendulum Impact Tester    ESCR Incubator



## Certifications



**EFSA**  
European Food Safety Authority



**FDA**  
Food and Drug Administration



**GMP**  
Good manufacturing practice



**Certified Recycled Content**



**FSSC 22000**  
Food Safety System Certification 22000



**SGS**  
System certification SA 8000



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