



PLASTICS

Andy Johnson | KW Plastics Recycling Division

OVERVIEW

- Who is KW Plastics
- End Market Demand
- Challenges
- Contamination
- Conclusion



KW PLASTICS

Who, What, Where & How

World's largest plastics recycler

- HDPE and PP postconsumer resin supplier
- 650,000,000 lbs extrusion capacity
- 150,000,000 lbs total silo capacity

Private company, HQ in Troy, Alabama

- KW Plastics-Troy, KW Plastics-California, KW Recycling Division
- Affiliate companies-Wiley Sanders Trucklines, KW Container (5 locations)
- 35 yrs. experience in plastics recycling + injection molding with PCR



KW PLASTICS

Who, What, Where & How

SUPPLY

CHAIN



SUPPLY

DEMAND



KW PLASTICS

Resin customers



L'ORÉAL
PARIS

ExxonMobil



SC Johnson
A FAMILY COMPANY



P&G

ESTÉE
LAUDER
COMPANIES



xerox



JARDEN
corporation

ECOLAB®

valspar



TOYOTA

LUSH
FRESH HANDMADE COSMETICS

Johnson & Johnson



RICOH



END MARKETS

Raw Materials

HDPE (#2) BALES

- Natural *blow mold grade | postconsumer*
- Pigmented / Mixed Color *blow mold grade | postconsumer*
- Bulky Rigids *injection grade | postconsumer + post industrial*

PP (#5) BALES

- Tubs & Lids *mixed grades | postconsumer*
- Post Industrial *mixed grades | post industrial*
- FIBC Bags *fiber grade | post industrial | flexible*



NATURAL

HDPE Bales



KW Plastics Recycling Division
Purchasing Specification Sheet

279 Pike County Lake Rd Troy, AL 36081 | 334.566.1563 | 800.633.8744 | kwplastics.com

High Density Polyethylene Bales-Natural

Post-Consumer, Blow mold grade, Homopolymer

Examples may include: natural (without pigment) bottles, primarily milk and water

COMPOSITION + QUALITY STANDARDS

A natural HDPE bale should contain homopolymer (natural), blow mold grade, post consumer bottles and be baled separately from mixed color or pigmented bottles which have a separate spec.

Bales may measure 3x4x5', 4x6x4' or other standard size and should be secured with 10-12 gauge galvanized baling wire or other non-corroding strapping. Bales should not be stored outside, uncovered any longer than four weeks prior to shipment. Cardboard may be used to prevent exposure and maintain bale integrity.

Any items that previously contained hazardous material, residue and/or medical waste will be rejected.

CONTAMINANTS

- > Paper, cardboard and metal
- > Any plastic not of the specified type: i.e., PET, PVC, LDPE, PP, PS, or Other (may be marked as #7); film
- > More than 2% of any other material that is not plastic: i.e., wood, styrofoam, rubber, liquid, paint or other residuals, etc.
- > Excessive amount of debris (sand, rocks, dirt, etc.) or moisture
- > Heavy baler residue, grease or grime
- > Industrial cooking oil containers *can be included in mixed color bales*
- > Any plastic that has deteriorated from sun or weather exposure
- > Injection grade plastics (bulky rigids)-wide mouth containers, crates, buckets, etc. There are separate specs for this material.

KWR PURCHASING DEPARTMENT

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KW PLASTICS IS THE INTERNATIONAL LEADER IN HIGH DENSITY POLYETHYLENE AND...
All materials purchased are for recycling. For more information, please visit www.kwplastics.com

PRICING

All prices are FOB selling point unless otherwise agreed. Base price per pound is determined by freight expense, material quality and a truck load weight of 40,000 pounds (see freight charges). All trucks are weighed empty and full on scales calibrated to 10 lb. accuracy. KW weights govern settlement. Price reductions/ freight charge may apply.

REJECTIONS + PRICE ADJUSTMENTS

Material purchased not meeting quality standards so as to render the material difficult to process or completely unmanageable will be subject to price adjustments or rejection. If a load or partial load is rejected due to non-conformity to specifications, the material supplier shall be responsible for any and all additional costs resulting from the rejection of such load including, but not limited to inbound/outbound shipping, demurrage, additional labor charges, landfill fees and other associated costs. Arrangements to pick-up or return rejected material must be made in a timely manner to avoid additional demurrage charges.

FREIGHT CHARGES

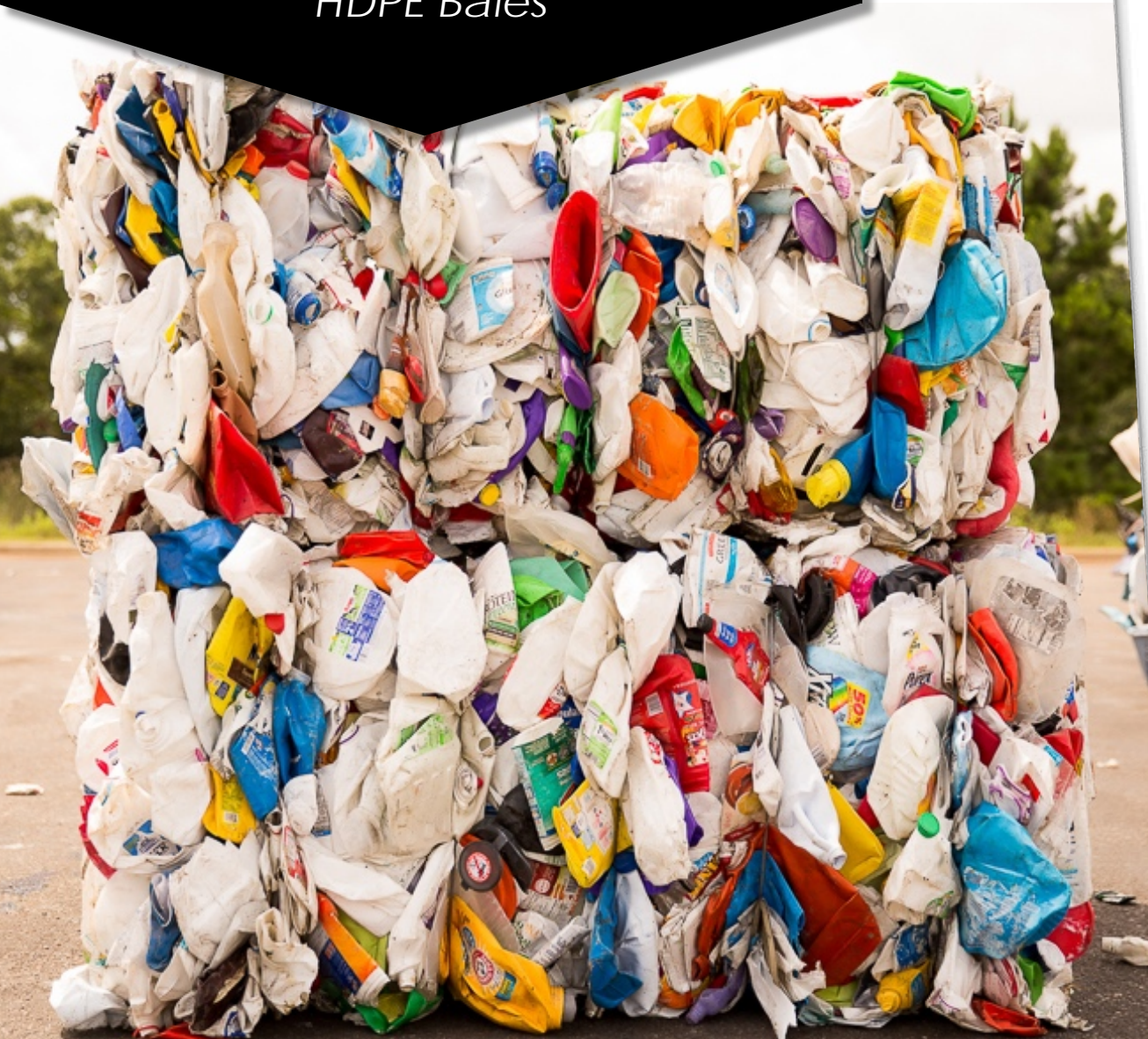
NET WEIGHT
35,000 lbs +
34,999

*Estimate



PIGMENTED

HDPE Bales



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High Density Polyethylene Bales-Pigmented

Post-Consumer, Blow mold grade, Co-polymer

Examples may include: mixed color household bottles, white & yellow milk jugs

COMPOSITION + QUALITY STANDARDS

A pigmented/ mixed color HDPE bale should contain colored (including white), post consumer bottles.

Bales may measure 3x4x5', 4x6x4' or other standard size and should be secured with 10-12 gauge galvanized baling wire or other non-corroding strapping. Bales should not be stored outside, uncovered any longer than four weeks prior to shipment. Cardboard may be used to prevent exposure and maintain bale integrity.

Any items that previously contained hazardous material, residue and/or medical waste will be rejected.

CONTAMINANTS

- > Paper, cardboard and metal
- > Any plastic not of the specified type: i.e., PET, PVC, LDPE, PP, PS, or Other (may be marked as #7); film
- > More than 2% of any other material that is not plastic: i.e., wood, styrofoam, rubber, liquid, paint or other residuals, etc.
- > Excessive amount of debris (sand, rocks, dirt, etc.) or moisture; heavy baler residue, grease or grime.
- > More than 4% of total bale weight of automotive oil containers, must no thoroughly drained and rinsed. Any insecticide or other chemical bottles are unacceptable and may be grounds for penalty.
- > Any plastic that has deteriorated from sun or weather exposure
- > Injection grade plastics (bulky rigids)-wide mouth containers, crates, buckets, etc. There are separate specs for this material.

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FREIGHT CHARGES

NET WEIGHT
35,000 lbs +
34,999
20,000
10,000
1

*Estimate



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BULKY RIGIDS

HDPE Bales



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High Density Polyethylene Bulky Rigids Bales

Post-Consumer, Injection grade
Examples may include: carts, crates, buckets, baskets, lawn furniture, etc.

COMPOSITION + QUALITY STANDARDS

A Bulky Rigids bale should contain injection grade HDPE, typically found to be wide mouthed containers and/or oversized items. Metal such as axels and bolts should be removed.

Bales may measure 3x4x5', 4x6x4' or other standard size and should be secured with 10-12 gauge galvanized baling wire or other non-corroding strapping. Bales should not be stored outside, uncovered any longer than four weeks prior to shipment. Cardboard may be used to prevent exposure and maintain bale integrity.

Any items that previously contained hazardous material, residue and/or medical waste will be rejected.

CONTAMINANTS

- > Paper, cardboard and metal
- > More than 4% of bale weight of plastic not of the specified type: i.e., PET, PVC, LDPE, PP, PS, or Other (may be marked as #7); film or fiber, HDPE blow mold grade (frac melt) or HMW (drums).
- > More than 2% of any other material that is not plastic: i.e., wood, styrofoam, rubber, liquid, paint or other residuals, etc.
- > Excessive amount of debris (sand, rocks, dirt, etc.) or moisture
- > Heavy baler residue, grease or grime
- > Any plastic that has deteriorated from sun or weather exposure

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KWR-Purchasing Spec-HDPE BULKY RIGIDS Bales-20130926 TMB

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FREIGHT CHARGES

NET WEIGHT
35,000 lbs +
34,999
20,000
10,000

*Estimate



KW PLASTICS IS THE INTERNATIONAL LEADER IN HIGH DENSITY POLYETHYLENE AND POLYPROPYLENE RECYCLING. ALL MATERIALS PURCHASED ARE FOR RECYCLING. FOR MORE INFORMATION, PLEASE VISIT www.kwplastics.com

TUBS & LIDS

Postconsumer PP Bales



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Post-Consumer Polypropylene Tub & Lid Bales

PP thermoform examples: yogurt cups, margarine tubs & lids, drink cups, clam shells, food trays
PP blow mold examples: hot-fill jugs and bottles (i.e. ketchup, tea, juice)

COMPOSITION + QUALITY STANDARDS

A PP Tub & Lid Bales, as defined by KW Plastics, should contain post-consumer PP. We anticipate and accept up to 20% LDPE within the bale. All metal components should be removed.

Bales may measure 3x4x5', 4x6x4' or other standard size and should be secured with 10-12 gauge galvanized baling wire or other non-corroding strapping. Bales should not be stored outside, uncovered any longer than four weeks prior to shipment. Cardboard may be used to prevent exposure and maintain bale integrity.

CONTAMINANTS

- > Paper, cardboard and metal
- > More than 4% of bale weight of plastic not of the specified type: i.e., PET, PVC, PS, film or fiber
- > More than 2% of any other material that is not plastic: i.e., metal, styrofoam, paper, cardboard, wood, rubber, liquid, paint or other residuals, etc.
- > Excessive amount of debris (sand, rocks, dirt, etc.) or moisture
- > Heavy baler residue, grease or grime
- > Any plastic that has deteriorated from sun or weather exposure

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FREIGHT CHARGES

NET WEIGHT
35,000 lbs +
34,999



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FIBC

Postconsumer PP Bales



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Polypropylene FIBC Bales

Post-Consumer and Post-Industrial

Examples may include: bulk bags used for dry goods such as granules, resin, seeds, peanuts, starch, etc.

COMPOSITION + QUALITY STANDARDS

An flexible intermediate bulk container (FIBC) bale should contain woven bulk bags. We understand the bale will likely contain other plastic components such as nylon, PET and LDPE. These contaminants should be kept to a minimum.

Bales may measure 3x4x5', 4x6x4' or other standard size and should be secured with 10-12 gauge galvanized baling wire or other non-corroding strapping. Bales should not be stored outside, uncovered any longer than four weeks prior to shipment.

Any items that previously contained hazardous material, residue and/or medical waste will be rejected.

CONTAMINANTS

- > Paper, cardboard and metal
- > Any plastic not of the specified type: i.e., PET, HDPE, PVC, LDPE, PS, Other (may be marked as #7)
- > More than 2% of any other material that is not plastic: i.e., wood, styrofoam, wood, rubber, liquid paint or other residuals, etc.
- > Excessive amount of debris (sand, rocks, dirt, etc.) or moisture
- > Foil Liners
- > Free flowing material
- > Chemicals and/ or additives: i.e., carbon black, super absorbant polymers, frac sand, etc.
- > Any plastic that has deteriorated from exposure to sun

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FREIGHT CHARGES

NET WEIGHT
30,000 lbs +
29,999



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DEMAND

Final Product & Applications

Premium postconsumer resins to

- Automotive
- Beauty & Personal Care
- Pipe
- Paint & Coatings
- Agriculture
- Packaging & Sheet



DEMAND

Applications



TruSnap™
BY KW CONTAINER



KW Container

CHALLENGES

Obstacles & Issues

- Contamination
- Shortage in Supply
- Mixed Messages re:
domestic markets
- Demand exceeds supply
- Under utilized capacity



CONCLUSION

- ✓ KW Plastics purchases HDPE and PP every day
- ✓ Domestic end markets are strong and reliable
- ✓ We *always* need more, better material
- ✓ Demand for quality applications exceeds supply
- ✓ Plastics have more value when recycled



CONTACT US

KW IS READY TO GROW WITH YOU!

www.kwplastics.com



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