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# IMPORTING PLASTIC GRANULES: A STRATEGIC GUIDE FOR PROCUREMENT LEADERS

Navigating the complexities of global plastic resin procurement with confidence and precision

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MARKET CONTEXT

# WHY PLASTIC GRANULES ARE A CRITICAL IMPORT COMMODITY

Plastic granules represent one of the highest-volume commodities in global manufacturing supply chains. For plastics processors, converters, and manufacturers, these raw materials form the foundation of production operations.

The market is characterised by razor-thin margins, price volatility tied to crude oil fluctuations, and intense global competition. Procurement decisions directly impact production costs, product quality, and ultimately, bottom-line profitability.

60%

Cost of Finished Goods  
Raw material typically  
represents

±15%

Price Volatility  
Quarterly price swings  
common

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# COMMON TYPES OF PLASTIC GRANULES IN GLOBAL TRADE

## **POLYPROPYLENE (PP)**

Versatile thermoplastic used in packaging , automotive parts , textiles, and consumer goods. Excellent chemical resistance and heat tolerance.

## **POLYETHYLENE (PE)**

Available in HDPE and LDPE variants. HDPE offers rigidity for containers; LDPE provides flexibility for films and bags.

## **PET & SPECIALITY RESINS**

PET dominates beverage packaging. ABS and PVC serve engineering and construction applications with specific performance requirements.

## **RECYCLED GRANULES**

Post-consumer and post-industrial recycled resins gaining market share due to sustainability mandates and cost advantages.



# MAJOR SUPPLIER COUNTRIES FOR PLASTIC GRANULES

## MIDDLE EAST PETROCHEMICAL HUB

Saudi Arabia, UAE , Qatar, and Iran leverage abundant feedstock to produce cost-competitive virgin resins, particularly PP and PE grades.

## ASIAN MANUFACTURING CENTRES

China , South Korea , Taiwan , and Thailand combine production scale with proximity to end markets, offering diverse resin portfolios.

## NORTH AMERICAN & EUROPEAN PRODUCERS

USA and EU suppliers provide premium-grade speciality resins with stringent quality certifications for high-value applications.





# CRITICAL QUALITY SPECIFICATIONS AND MFI PARAMETERS

Before committing to any shipment, importers must verify technical specifications that determine processing compatibility and end-product performance. The melt flow index (MFI) is particularly crucial as it indicates how the resin will behave during processing.

01

## MELT FLOW INDEX (MFI) TESTING

Measures polymer flow rate under controlled temperature and pressure. Critical for injection moulding and extrusion process settings.

02

## DENSITY & MOLECULAR WEIGHT

Determines mechanical properties, stiffness, and impact resistance. Must align with intended application requirements.

03

## COLOUR & ADDITIVE CONTENT

Natural or pre-coloured grades require consistent pigmentation. UV stabilisers, flame retardants, and other additives must meet specifications.

04

## CONTAMINATION & MOISTURE LEVELS

Foreign particles and excessive moisture cause defects. Pre-shipment testing prevents costly production disruptions.

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# REGULATORY REQUIREMENTS FOR IMPORTING PLASTIC GRANULES IN INDIA

## Bureau of Indian Standards (BIS) Certification

Certain plastic products require BIS certification. Verify whether your imported granules or downstream products fall under mandatory standards (IS 10146, IS 14502).

## Central Pollution Control Board (CPCB) Norms

Environmental clearances and waste management protocols apply to plastic processing facilities. Importers must ensure compliance with Plastic Waste Management Rules 2016 (amended 2021).

## Extended Producer Responsibility (EPR)

Manufacturers using virgin plastics face EPR obligations for post-consumer waste collection and recycling. Factor EPR costs into landed cost calculations.



# VIRGIN VS RECYCLED GRANULES: UNDERSTANDING THE TRADE-OFFS

## Virgin Plastic Granules

- **Pricing:** Higher cost reflecting petrochemical feedstock and refining processes
- **Performance:** Consistent mechanical properties, predictable processing behaviour, superior aesthetics
- **Applications:** Food-contact packaging, medical devices, high-performance engineering components
- **Certifications:** Easier to obtain FDA, REACH, and food-safety approvals

## Recycled Plastic Granules

- **Pricing:** 20-40% cost advantage depending on quality grade and market conditions
- **Performance:** Variable properties requiring careful testing; limited colour options
- **Applications:** Non-food packaging, construction materials, automotive under-bonnet components, industrial products
- **Sustainability:** Reduced carbon footprint; meets corporate ESG and circular economy targets

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# HS CODES AND ESSENTIAL IMPORT DOCUMENTATION

1

## HS Code Classification

Chapter 39 covers plastics. Key codes: 3901 (PE), 3902 (PP), 3907 (PET), 3903 (PS), 3904 (PVC). Accurate classification is critical for duty calculation.

2

## Commercial Invoice & Packing List

Detailed description of goods, quantity, unit price, total value, and Incoterms. Must match Bill of Lading exactly.

3

## Bill of Entry & Customs Declaration

Filed electronically via ICEGATE portal. Requires IEC number, GSTIN, and accurate declared value for assessment.

4

## Certificate of Origin & Test Reports

Required for preferential duty treatment under FTAs. Third-party test certificates verify quality specifications and regulatory compliance.

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# UNDERSTANDING LANDED COST COMPONENTS AND PROFITABILITY IMPACT

Successful procurement requires precise calculation of all cost elements from supplier gate to factory floor. Hidden costs and duty variations can erode margins if not anticipated properly.

1

## BASE FOB PRICE

Negotiated supplier price + inland freight to port of export

2

## OCEANFREIGHT & INSURANCE

Shipping costs vary by route, season, and container availability

3

## CUSTOMSDUTY + IGST

Basic duty (0-7.5%), anti-dumping duties (case-specific), 18% IGST on assessable value

4

## PORT & INLAND LOGISTICS

Handling, CFS charges, transport to factory

❑ Anti-dumping duties on specific polymer grades from certain countries can add 5-25% to costs. Always verify current duty structure before finalising orders.



# RISK MANAGEMENT AND SUPPLIER PARTNERSHIP STRATEGIES

## Quality Assurance

- Pre-shipment inspection by third-party agencies (SGS, Bureau Veritas)
- Retain samples from each lot for traceability and dispute resolution
- Establish clear rejection criteria and claim procedures in contracts

## Supplier Selection

- Audit production facilities and quality management systems
- Verify certifications (ISO 9001, ISO 14001, relevant product standards)
- Assess financial stability and supply chain resilience

## Contract & Logistics Optimisation

- Negotiate volume commitments with price stability mechanisms
- Build safety stock to buffer against supply disruptions and lead time variability
- Diversify supplier base across geographies to mitigate concentration risk
- Use Letters of Credit or trade finance to balance payment security with cash flow



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