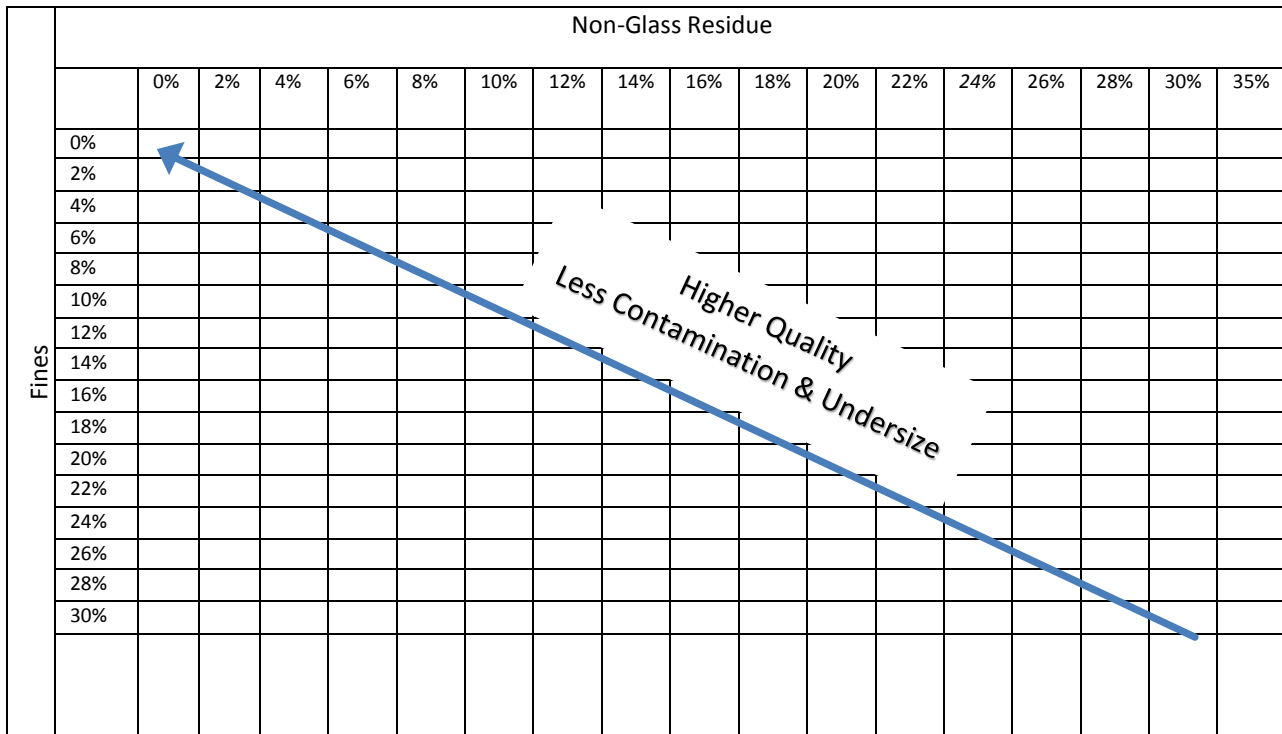


ISRI REVIEW: MRF Glass Specification

Material Recovery Facility-derived 3-Color Mixed Container Glass ("MRF Glass") DESCRIPTION FOR ISRI REVIEW: MRF Glass consists of crushed or whole scrap Flint (clear), Amber (brown), and Green (emerald) container/bottle glass made from soda-lime-silica. These standards and practices apply to 3-color mixed glass for purchase or sale in the United States and Canada. Transactions covering shipments to or from other countries may also be in accordance with these standards and practices and may be modified by mutual agreement between buyer and seller. These specifications are guidelines for buying and selling MRF glass and are always subject to the buyer and seller's agreement. It is recognized that MRF Glass may be mixed with other materials as a result of recycling collection convenience and efficiency, and that quality levels and pricing varies widely based on the amount of contamination mixed in with the glass.



Since there are many different generations of Material Recovery Facilities (MRFs), cleaning equipment in operation, and curbside collection programs, the quality generated by MRFs varies widely. Processors evaluate this heterogeneous material by evaluating the amount of:

- **Residue** (non-glass residue): Higher amounts of residue result in a lower rank as the processor must separate this residue and dispose of it.
- **Undersize:** Undersize is otherwise known as “fines”. Higher amounts of undersize result in quality issues as very small pieces of glass can’t be optically sorted. If a disproportional amount of the stream is too small, it can overwhelm the processor’s capabilities

Value is directly proportional to the amount of each in the MRF Glass.

Contamination:

Non-Glass Residue – Materials found in dual stream and single stream curbside collection programs entering a Material Recovery Facility (MRF). Examples of this material may be: paper, wood, food or organic material, metal/plastic closures, labels, corks, rock, dirt, and other inert materials. See chart above for tolerance limits; maximum tolerance - 35%.

Undersized or Pulverized Material ("Fines") – This material consists of mixed color glass particles crushed so small as to render current optical sortation unfeasible. Glass particles less than 1/8" are typically considered to be fines. See chart above for tolerance limits; maximum tolerance - 30%.

Ceramics – This material consists of broken bits of household ceramic. Examples of ceramic materials are dinner plates, mugs, cups, etc. Tolerance – 2% Maximum.

Moisture – This is considered excessive water mixed with glass. Examples of moisture are small fibers soaked by rain, ice or snow. Organic materials and dirt can also contain moisture. Tolerance – 5% maximum.

Prohibitives: This material is not allowed and can subject a load to rejection procedure.

- .025% of total load allowed:
 - Pyro Ceramics (Fireplace glass)
 - Gypsum, wallboard, drywall, glass from construction & demolition debris mixed with CaCO₃ fines
 - Common moisture-absorbing desiccants (silica gels beads, alumina pellets, closet paks, etc.)

- 0% of total load allowed:
 - CRT glass
 - Lead glass
 - Tempered window glass
 - Flammables
 - Radioactive waste
 - Weapons
 - Medical Waste
 - Insecticides
 - Poisons
 - Heavy Metals
 - Asbestos
 - Other materials that can be classified as hazardous or harmful to human health or the environment