



MI  **E**® *stone*
Made in the USA

ABOUT FLORIM

- Florim USA is one of the largest and most technologically advanced porcelain facilities in North America. The largest single site producer in the US.
- Owned by the Florim Group who recently received the Benefits Corporation designation due to its support of the Triple Bottom Line.
- Florim USA has over 1,300+ employees world-wide with 275 of those at the Florim USA location.



The CRT Project

- Built from a history of novel raw materials
- Glass accepted from the local landfill
- The search for large volumes began in 2017
- CRT recycler found us on the Material Marketplace in mid 2019
- Started with 5 pounds, then a couple of trucks
- In 2020 we processed over 6 million pounds of CRT panel glass

Challenge: Cost

- Glass is chemically sand
- Sand is our cheapest raw material @ \$20/ton FOB Florim
- Shipping cost is often the deciding factor
- \$20 will ship a ton about 150 miles
- E-waste business models help us in that the material is generally FOB Florim at no or little cost.

Challenge: Pb

- The target is 10ppm lead in the final product
- Product transparency, Prop 65, etc
- Ergo the cap on the glass is 100 ppm assuming 10% CRT glass in the tile.
- Funnel glass is 50,000 ppm and up
- Clean panel glass is the best solution today
- Funnel glass is currently untenable for use in tile

Challenge: Analysis



Particle size presented an analytical problem.

Solution: powdered samples to ensure homogeneity.

Challenge: Schedule

- Seasonal variations
- Our ability to use it exceeds generation
 - In discussions with a second supplier.
- Imbalances bring recipe changes
- Recipe changes bring quality issues

Why we like professional recyclers!



Our Product



And Another

