



## METAL DETECTABLE SELECTION CRITERIA

Metal Detectable plastics can add a whole new level of foreign contaminant prevention. What plastic is best for your application? What criteria should you consider when optimizing a detectable material for your food application? Let's look at a few selection criteria to consider when specifying detectable materials.

### POINTS TO CONSIDER WHEN SELECTING METAL DETECTABLE PLASTICS

#### ENVIRONMENT DURING PRODUCTION

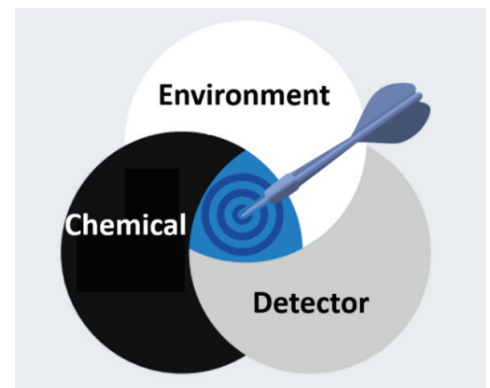
- Wet, Dry, Liquid, Frozen or Paste
- Temperature (Plastics soften as temperature increases)
- Pressure and Velocity (PV)
- Friction / Abrasion

#### CHEMICAL COMPATIBILITY: *Certain materials can react to chemicals*

- Acidic or Basic (E.g. Tomatoes, Apples)
- What chemicals is the part exposed to during cleaning?
- Continuous exposure to hot water or steam

#### METAL DETECTOR TYPE: *There are several different manufacturers of detection systems. Each detector requires a specific calibration depending on the size, location, and process.*

- Calibration Levels
- Orientation to Food Stream
- Aperture Dimensions



	Blue	MD	Temp	Abrasion	Wet	Dry	Wear	Impact	Stiffness
UHMW-PE	Best	Great	Poor	Best	Great	Best	Great	Best	Poor
PA6	Best	Great	Great	Great	Poor	Best	Best	Best	Good
POM-H	Best	Great	Great	Great	Best	Good	Best	Great	Great
POM-C	Best	Best	Great	Great	Best	Good	Best	Great	Great
PBT	Best	Best	Great	Great	Best	Good	Best	Great	Great
PEEK	Best	Great	Best	Good	Good	Best	Poor	Best	Best

Depending upon the sensitivity of your system, smaller pieces (< 3mm) that may break off and fall into the production stream are capable of consistently being detected, allowing product to be set aside for visual inspection, preventing a potentially expensive recall.

WE HAVE A LONG HISTORY IN PROPOSING THE MOST SUITABLE RADIATION RESISTANT POLYMER FOR ANY ENVIRONMENT. CONTACT DANA SCOTT OR YOUR NEAREST PORT PLASTICS SALES OFFICE FOR ALL OF YOUR MATERIAL NEEDS.