

# Coarse Zero Valent Iron (ZVI)

Redox Tech's ZVI is produced by spraying virgin molten ore into a water stream (water atomization). The process produces a broad range of particle sizes. Our coarse ZVI is predominantly greater than 300 microns. Over the past 15 years, Redox Tech has tested and evaluated numerous ZVI products available in the marketplace. We have chosen the product that provides the best overall value in terms of quality, reactivity, purity and price. The finer sized particles from our supplier are used in food for iron fortification. Ask your supplier if their product is food grade. Our Fine ZVI is intended for soil blending or injection projects, and our Coarse ZVI should be used for soil blending or barrier applications.

Many of our competitor's products are produced by recycling scrap iron (regrind) or blast shot. Those products are typically around 90 percent iron versus 99 percent for our product. The regrind or blast shot can have undesired products and can lack consistency in composition. Often regrind ZVI will have visible iron oxide (rust), which means diminished reactivity. Redox Tech has also observed oil in some regrind product that is likely cutting or hydraulic oil.

## FEATURES AND BENEFITS

**Consistent Quality** – our product is produced from virgin ore using the same product that has been utilized for decades. Other products use scrap iron and varied feedstocks that are often reused with little processing.

**High Purity** – our product is consistently greater than 99 percent iron and is suitable for use as a food additive. There is no need to worry about introducing metal or organic contamination to your site.

**Excellent Reactivity** – our product has undergone extensive laboratory and field testing and is well documented to have exceptional and consistent reactivity.

## PHYSICAL AND CHEMICAL PROPERTIES

Chemical Analysis (wt%)

C	O	S	P	Mn	Si	V	Ti	Cu	Fe
0.05	0.18	0.01	0.01	0.01	0.01	0.02	0.02	0.03	>99

Particle Size Distribution

U.S. mesh	+30	+50	+100	+200	-200
µm	+600	+300	+150	+75	745
wt%	20	35	25	14	9