



**FACT SHEET**

**INHANCE<sup>®</sup> Ti-9113 Titanium Carbide  
Polymer Alloy**

**Product Description:** INHANCE Ti-9113 polymer alloy consists of spherically shaped titanium carbide micro grains chemically bonded to surface-activated Ultra High Molecular Weight Polyethylene (UHMW PE) particles. This product was designed for alloying with various polymer materials. When incorporated in polymers, unique grades of high-performance polymeric composites are formed that have exceptional abrasion-resistance, wear performance, and surface lubricity qualities. Frequently these composites have abrasion resistance greater than metal. They are also are light weight, non-corroding, and electrically non-conductive.

**Grades Available:**

- INHANCE Ti-9113

**Applications:** Ideal applications include machinery parts and mechanical components for severe-service mechanical or chemical environments, where repair/replacement of worn parts is very costly because of down time, and where optimal performance is needed. Examples include pump impellers, valve seats, piston rings, gears, seal rings, bearings, liners, wear-plates, guide-rails, as well as cable (protective jacketing), steel replacement parts, and high performance coatings.

**Physical Characteristics:** INHANCE<sup>™</sup> Ti-9113 is a free flowing, dark gray, prealloyed powder with the following general properties.

Particle size (average)	63 $\mu$
Specific Gravity	2.58
Bulk Density	0.97-1.03 g/cc 0.036 lb/in <sup>3</sup>
TiC grain size	1 – 2 $\mu$
TiC hardness	3,400 VHN

**Standard Packaging:**

40 lb. plastic pails with polybag insert

Call Sales for other sizes