



Information Bulletin

Gilsonite® Foundry Grade

Principal Applications

Foundry Sand Additive
Refractories
Ingot Mold Coating
Briquette or Pellet Binder

Properties

Softening Point (ASTM E28-92)	160 - 182°C 320 - 360°F
Ash (ASTM D-271-70 M)	0.50% Typical 2.0% Max. Guaranteed
Moisture (AGC Method)	0.5% Typical 2.0% Max. Guaranteed
Penetration (25°C, 100 gm, 5 sec.)	0
Flash Point (COC)	316°C; 600°F
Sulfur	0.3%
Specific Gravity	1.05
Color In Mass	Black
Fixed Carbon	18%
BTU per pound	18,000
Volatile Combustible Matter (1900°F, ASTM D271-4)	81%
Lustrous Carbon Content	35 - 38%
Coking Value	25 - 30%

Typical Elemental Analysis, Weight

Carbon	85%
Hydrogen	10%
Nitrogen	3%
Oxygen	1.5%
Silicon, Nickel & Trace Elements	0.3%

Typical Particle Sizing

(ASTM (E11-70))

	% Retained (cumulative)		
	<u>Super Coarse</u>	<u>Small Lump</u>	<u>Pulverized</u>
+ 4 mesh	≤ 1	≤ 2	--
+ 10 mesh	≥ 5	≤ 3	--
+ 30 mesh	--	--	≤ 0.1
+ 50 mesh	--	--	≤ 1.3
+ 65 mesh	≥ 65	≤ 55	--
+ 100 mesh	--	--	≤ 8.5
+ 150 mesh	≥ 87	≤ 77	--
+ 200 mesh	--	--	≤ 30

Product Application for Foundry Grade Gilsonite

Physical Sand properties with Gilsonite® resin are equal or superior to seacoal at significantly lower additive levels. Gilsonite® improves sand density, water requirements and strength (green,

dry, baked, and hot). Gas evolution curves show that Gilsonite® volatilizes more rapidly than seacoal. Isonite has the same total volatiles as seacoal at one-third the additive level.

Packaging

Gilsonite® Foundry Grade is available in 50 lb. And 25 kilo net multi-ply paper bags, which may be palletized and stretch wrapped. It is also available in bulk loaded trucks and in a variety of bulk bag sizes.

Health & Safety

Gilsonite® is a naturally occurring hydrocarbon. There is no known history of dermatitis, lung disease or other health problems associated with handling of Gilsonite as supplied. Dusts are subject to combustion. Normal precautions used with flammable materials apply.

REACH

Gilsonite is a naturally occurring mineral and not subject to REACH regulations.