

FEATURES & BENEFITS

INCAST® foundry sand, with fine-tuned process control and consistent gradation, is produced from high-purity, monocrystalline quartz for improving core and mold strength. Our subangular, 99%+ quartz sand has lower bulk density and excellent permeability for efficient curing during core making and venting upon pouring to minimize gas-related casting defects. This lower bulk density also improves shakeout.

In high-temperature applications, our subangular, refractory sand reduces thermal expansion with the right packing density. This sand is resistant to core and mold thermal cracking. You'll also be proud of the surface finish.

All INCAST foundry sand is processed and sized with rigid adherence to the Covia QIPSM statistical and quality assurance program.

PARTICAL SIZE ANALYSIS

Typical Mean Values. These Do Not Represent A Specification.

	Mesh Size		INCAST® Grades	
	ASTM	MICRONS	35LF	40
Typical mean % retained on individual sieves	20	850	5.4	2.9
	30	600	19.5	7.9
	40	425	28.2	12.5
	50	300	31.0	33.7
	70	212	13.4	27.6
	100	150	2.3	12.4
	140	106	0.2	2.9
	200	75	–	0.1
	270	53	–	–
	PAN	PAN	–	–
AFS-GFN	–	–	34	44
Calculated surface area (cm ² /g)	–	–	106	153

PHYSICAL PROPERTIES

Typical Mean Values. These Do Not Represent A Specification.

INCAST® Foundry Sand		
Grain Shape	Subangular	AFS 107-87-S
Clay Content (%)	0.2	AFS 110-87-S
Acid Demand Value (ADV)	0.7	AFS 114-87-S
Melting Point (°F/°C)	3135/1724	ASTM C-24
Specific Gravity (g/cm ³)	2.65	ASTM C-128
Moisture Content (%)	<0.1	ASTM C-566
Bulk Density/Loose (lb/ft ³)	92-95	ASTM C-29
Bulk Density/Compacted (lb/ft ³)	98-100	ASTM C-29

CHEMICAL ANALYSIS

Typical Mean Values. These Do Not Represent A Specification.

Typical Mean Percent by Weight	
Silicon Dioxide (SiO ₂)	97.73
Iron Oxide (Fe ₂ O ₃)	0.29
Aluminum Oxide (Al ₂ O ₃)	0.98
Calcium Oxide (CaO)	0.02
Titanium Dioxide (TiO ₂)	0.10
Magnesium Oxide (MgO)	0.02
Potassium Oxide (K ₂ O)	0.57
Sodium Oxide (Na ₂ O)	0.03
Loss on Ignition (LOI)	0.26

SHIPPING/ORDERING INFORMATION

- Shipping Point: Tuscaloosa, AL
- Originating Carrier: Norfolk Southern
- Availability: Bulk
Truck

CUSTOMER SERVICE

US & Canada: 1-800-243-9004

Fax: 1-800-243-9005

Worldwide: 1-203-442-2500

Fax: 1-203-972-1378

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GRADE NUMBERS INDICATE RELATIVE VALUES OR RESULTS. THEY ARE NOT A SPECIFICATION OR WARRANTY OF PERFORMANCE.

HEALTH HAZARD WARNING: Prolonged inhalation of dust associated with the materials described in this data sheet can cause delayed lung injury including Silicosis, a progressive, disabling and sometimes fatal lung disease. IARC and NTP have determined that crystalline silica can cause lung cancer in humans. Risk of injury is dependent on the duration and level of exposure. Follow OSHA or other relevant safety and health standards for the form of crystalline silica called Quartz. Current safety data sheet, containing safety information, is available and should be consulted before usage.

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Silica/Silica Containing

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