

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.

PARTICAL SIZE ANALYSIS

Typical Mean Values. These Do Not Represent A Specification.

	Mesh Size		INCAST® Grades								
	ASTM	MICRONS	10	11	20	25	40	43	45	50	55
Typical mean % retained on individual sieves	6	3.35 mm	0.2	–	–	–	–	–	–	–	–
	8	2.36 mm	10.5	–	–	–	–	0.8	–	–	–
	10	2.0 mm	13.0	3.8	1.0	–	–	0.9	–	–	–
	12	1.7 mm	14.6	13.8	3.7	–	–	1.1	–	–	–
	16	1.18 mm	35.3	46.8	14.5	0.3	–	2.9	–	–	–
	20	850	20.0	27.1	17.4	10.2	2.6	3.2	2.2	–	–
	30	600	3.6	5.1	31.2	39.3	8.6	5.7	6.7	–	–
	35	500	–	–	20.9	31.9	–	–	–	3.1	–
	40	425	1.3	1.6	7.3	13.1	21.9	14.9	16.9	10.1	4.0
	50	300	0.9	1.0	3.1	4.5	39.9	28.1	31.7	38.3	19.2
	70	212	–	–	–	–	23.3	27.1	28.5	33.2	44.3
	100	150	0.6	0.7	0.7	0.7	3.4	12.4	11.8	12.7	24.8
	140	106	–	–	–	–	0.3	2.6	2.1	2.5	6.7
	200	75	–	–	–	–	–	0.2	0.1	0.1	1.0
270	53	–	–	–	–	–	–	–	–	–	
PAN	PAN	–	–	–	–	–	–	–	–	–	
AFS-GFN	–	–	9	11	20	25	39	43	44	47	57
Calculated Surface Area (cm ² /g)	–	–	28	30	56	70	127	147	150	164	205

PHYSICAL PROPERTIES

Typical Mean Values. These Do Not Represent A Specification.

INCAST® Foundry Sand		
Grain Shape	Subangular	AFS 107-87-S
Clay Content (%)	0.4%	AFS 110-87-S
Acid Demand	<1	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 (g/cm 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)	99.52
Iron Oxide (Fe ₂ O ₃)	0.094
Aluminum Oxide (Al ₂ O ₃)	0.158
Calcium Oxide (CaO)	0.009
Titanium Dioxide (TiO ₂)	0.035
Magnesium Oxide (MgO)	0.009
Potassium Oxide (K ₂ O)	0.041
Chromium (III) Oxide (Cr ₂ O ₃)	0.002
Sodium Oxide (Na ₂ O)	0.0007
Loss on Ignition (LOI)	0.133

SHIPPING/ORDERING INFORMATION

- Shipping Point: Chardon, OH
- Availability: Bulk, IBC, 50 lb Paper Bag
Truck Only

CUSTOMER SERVICE
US & Canada: 1-800-255-7263
Fax: 1-269-465-6075

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

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