

BadgerCast®

High-quality, round grain foundry sand

OVERVIEW

BadgerCast® high-quality foundry sand is a premium round grain silica sand made specifically for the metal casting industry. Badger Mining sources from some of the highest-purity sandstone in North America. Through carefully controlled mining, washing, drying, and blending processes, this raw material is transformed into a consistent, high-performance finished product. Badger Mining's ISO-certified processes ensure consistent quality with every load.

PARTICLE SIZE ANALYSIS

Mesh Size	20	30	40	50	70	100	140	200	270	Pan	AFS/GFN
FW45	0.0	1.9	24.2	30.1	26.2	14.6	2.8	0.2	0.0	0.0	45.9
FW50	0.0	0.7	16.4	27.8	29.6	20.9	4.2	0.4	0.0	0.0	50.3
FW55	0.0	0.3	10.1	23.9	30.1	28.2	6.8	0.5	0.1	0.0	55.1
FW60	0.0	0.1	5.5	17.4	29.9	35.5	10.4	1.1	0.1	0.0	60.5
FW62	0.0	0.0	4.6	15.8	30.0	37.4	10.6	1.5	0.1	0.0	61.8
FW65	0.0	0.0	2.9	12.2	28.4	40.8	13.2	2.2	0.2	0.1	65.4
FW70	0.0	0.0	0.7	4.8	28.0	46.0	17.5	2.6	0.3	0.1	70.4
FW75	0.0	0.0	0.2	2.1	23.3	49.5	20.6	3.6	0.5	0.2	74.4
FW80	0.0	0.0	0.1	1.5	17.1	46.8	27.5	6.1	0.9	0.0	79.8
FW83	0.0	0.0	0.0	0.3	6.7	51.5	36.5	4.8	0.2	0.0	83.1
FW90	0.0	0.0	0.0	0.8	10.6	39.5	33.9	12.9	2.2	0.1	90.0
FW100	0.0	0.0	0.0	0.4	4.8	33.2	38.4	18.7	4.3	0.2	99.5
FW110	0.0	0.0	0.0	0.1	1.8	25.7	39.9	26.1	6.1	0.3	108.6
T40	0.2	9.9	28.1	35.7	24.2	1.8	0.1	0.0	0.0	0.0	38.2
T48	0.0	0.0	8.9	39.1	36.3	12.4	2.8	0.5	0.0	0.0	48.6
T50	0.0	0.0	7.2	35.4	37.2	15.9	3.7	0.6	0.0	0.0	50.7
T53	0.0	0.0	7.1	31.9	34.4	20.6	5.2	0.8	0.0	0.0	52.8
T56	0.0	0.0	6.1	27.4	35.6	23.8	5.5	1.5	0.1	0.0	55.1
T58	0.0	0.0	1.3	22.1	39.4	28.4	7.4	1.3	0.1	0.0	58.2
T60	0.0	0.0	1.1	20.3	37.8	31.3	8.0	1.4	0.1	0.0	59.4
T70	0.0	0.0	0.1	1.6	29.2	54.2	12.6	2.0	0.2	0.1	69.3
T80	0.0	0.0	0.0	0.1	11.9	56.7	23.8	6.2	1.2	0.1	80.9

* Limited availability of 80 GFN and finer products



**Badger Mining
Corporation**

Superior by Nature, Quality by Badger

BadgerCast®

High-quality, round grain foundry sand

CHEMICAL PROPERTIES

	Value
Silicon Dioxide (SiO ₂)	99.70%
Aluminum Oxide (Al ₂ O ₃)	0.13%
Iron Oxide (Fe ₂ O ₃)	0.06%
Potassium Oxide (K ₂ O)	0.08%
Calcium Oxide (CaO)	0.02%
Sodium Oxide (Na ₂ O)	<0.01%
Magnesium Oxide (MgO)	<0.01%
Titanium Dioxide (TiO ₂)	<0.01%

PHYSICAL PROPERTIES

	Value
Loss on Ignition (LOI)	0.07%
Moisture	0.01%
Base pH	7.0
Sintering Point	3010°F
Grain Shape	Round/Sub-Round
Specific Gravity	2.65
Bulk Density (tapped)	105-111 lb/ft. ³
Clay Content	0.08%
Acid Demand Value	0.5

BASE PERMEABILITY

FW45	FW50	FW55	FW60	FW62	FW65	FW70	FW75	FW80	FW83	FW90	FW100	FW110
117.2	94.6	82.4	70.7	70.9	66.5	60.1	54.2	49.2	50.2	39.2	34.7	31.1

T40	T48	T50	T53	T56	T58	T60	T70	T80
188.5	112	100.2	86.5	79.2	73.5	70.5	59.8	44.0

All chemical and physical properties are typical and tested in accordance with AFS Mold and Core Test Handbook in BMC's laboratories. We recommend that you confirm all properties in the laboratory of your choice.

SILICA SAND PRODUCTS

MAY CAUSE CANCER IF INHALED. CAUSES DAMAGE TO LUNGS, KIDNEYS AND IMMUNE SYSTEM THROUGH PROLONGED OR REPEATED EXPOSURE BY INHALATION.



DANGER

These products have been classified following the Globally Harmonized System (GHS) of Classifying and Labeling Chemicals criteria, as a Category 1A Carcinogen, and a Category 1 Specific Target Organ Toxicity (following repeated exposures). For Industrial Use Only. DO NOT USE THIS PRODUCT FOR BLASTING OR AS AN ABRASIVE. DO NOT BREATHE DUST. PRODUCT CAN ACCUMULATE ELECTROSTATIC CHARGES DUE TO FRICTION FROM TRANSFER AND MIXING OPERATIONS AND CAUSE AN ELECTRICAL SPARK (IGNITION SOURCE) WHICH CAN IGNITE FLAMMABLE LIQUIDS AND ATMOSPHERES. PROVIDE ADEQUATE PRECAUTIONS WHEN ADDING THIS PRODUCT TO FLAMMABLE AND COMBUSTIBLE MIXTURES.

Read the specific Safety Data Sheet (SDS) before using and follow applicable local, state and federal health and safety standards. The SDSs for the products are available online at www.badgerminingcorp.com or by calling 800-285-0038. Revision October 2024

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