

# GEOHERMAL SANDS

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## PRODUCT

TARGET® Geothermal Sands are high quality, close graded silica sands which are produced at our Morinville, Alberta, plant in several size grades. Typical gradations are presented in the following tables.

Target Products manufactures premium NSF Certified Geothermal Sands that meet all AWWA B100 standards.



Certified to NSF/ANSI 61

## USES

Target Geothermal Sands are well suited for geothermal grout applications. The raw materials are dried to sterilize the particles before proceeding with the sizing process. With the wide range of screen sizes available in the screening plant, the materials are sized to meet the criteria required in geothermal grout applications. Rigorous quality control testing, during production, assures that the final products meet the requirements of the geothermal industry.

## USER INSTRUCTIONS

Sand quantity required may vary depending on characteristics and desired outcome. User testing is important to determine suitability of product for intended method of application and use. Before installation, please ensure the media has the proper sizing identification. Add Target Geothermal Sand to Bentonite slurry at a steady rate for 1 to 2 minutes, mix for 2 minutes or until a consistent mixture is obtained and place according to grout manufacturer instructions.

## PHYSICAL PROPERTIES

Colour	Tan
Grain Shape	Sub-rounded
Bulk Density	95 - 100 lb/ft <sup>3</sup> (1520-1680 kg/m <sup>3</sup> ) Bulk density values may vary with particle size. Values are determined for individual projects if required. Typical values (based on 2000 lb per ton) are: 1.65 tons per cubic meter
Hardness, Moh	6.5 - 7
Specific Gravity	2.65
Moisture Content	<0.1% weight
Acid Solubility	<5% weight

## PACKAGING

- Target Geothermal Sands are available in the following packaging types.
- 22.7 kg (50 lb) plastic bags
- 40 kg (88 lb) paper bags
- 1.75 metric ton (3850 lb) bulk bags.

Other bag sizes and bulk deliveries are available on request.

**NOTICE:** Obtain the applicable **LIMITED WARRANTY** at [www.targetproducts.com/product-warranty](http://www.targetproducts.com/product-warranty)  
Or send a written request to Target Products Ltd., Five Concourse Parkway, Atlanta, GA 30328, USA.  
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## TYPICAL CHEMICAL ANALYSIS AND PROPERTIES

Chemical Compound		Typical Value, % weight
Silica	SiO <sub>2</sub>	93.2 - 93.6
Alumina	Al <sub>2</sub> O <sub>3</sub>	3.6 - 4.6
Iron Oxide	Fe <sub>2</sub> O <sub>3</sub>	0.30 - 0.35
Calcium Oxide	CaO	0.25 - 0.65
Magnesium Oxide	MgO	0.08 - 0.15
Sodium Oxide	Na <sub>2</sub> O	0.75 - 0.85
Titanium Oxide	TiO <sub>2</sub>	0.1 maximum
Loss on Ignition		0.3 maximum

## TYPICAL SIEVE ANALYSES - Percent Passing

Sieve Size		SANDS, Cumulative % Passing		
ASTM	Metric	30-50	40-70	60-140
No. 20	0.85 mm	100	100	
No. 30	0.60 mm	80+	98+	
No. 40	0.42 mm	30-45	60-80	96-100
No. 50	0.30 mm	0-10	15-30	88-98
No. 70	0.212 mm		0-5	40-60
No. 100	0.180 mm			30-50
No. 140	0.150 mm			10-30
No. 170	0.106 mm			1-5

## TYPICAL SIEVE ANALYSES - Percent Retained

Sieve Size		SANDS, Individual % Retained		
ASTM	Metric	30-50	40-70	60-140
No. 30	0.60 mm	5-25	0-2	
No. 40	0.60 mm	40-60	20-40	0-4
No. 50	0.42 mm	20-35	45-65	2-8
No. 70	0.30 mm	0-10	15-25	40-60
No. 100	0.212 mm		0-5	25-45
No. 140	0.180 mm			10-25
No. 170	0.150 mm			1-5

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