

## > Select Coarse and Granular Backfill Utilizing TMS International Steel Slag

### MANY PRODUCTS AVAILABLE

- Meet or exceed American Association of State and Highway Transportation Officials specifications
- Angular slag particles interlock to resist washouts
- Coarse, Fine, and Open grade products available

### UNIQUELY STABLE

- Natural Pozzolanic effect promotes early surface hardening and resists shrinkage
- Steel slag is a uniquely stable, cementitious aggregate
- Sub base materials produce high proctor values, typically 135-145 lbs/ft<sup>3</sup> at optimum moisture

### GOOD FLOW CHARACTERISTICS

- Good flow characteristics for easy placement and compaction
- Quality-controlled; can be graded to meet various Department of Transportation requirements



## TMS INTERNATIONAL STEEL SLAG IS A STABLE, SUSTAINABLE PRODUCT OF THE STEEL MAKING PROCESS, ENGINEERED FOR USE BY TMS INTERNATIONAL

Based on its physical properties, and through extensive testing and actual field use throughout the United States, TMS International Steel Slag can outperform natural aggregates in a variety of special applications.

TMS International Steel Slag is processed at local steel mills and is structurally stable. When fully cured, TMS Steel Slag represents a practical resource that is both economically attractive and environmentally sound, well below US EPA Toxicity Characteristics Leachate Procedure (TCLP) limits by a wide margin.

TMS International Steel Slag is available to suit individual size and specification requirements.

For more information on TMS Steel Slag, contact our Aggregate Sales Department at **1-855-TMS-SLAG** (1-855-867-7524) or visit our website at [tmsinternational.com/slag-aggregates.cfm](http://tmsinternational.com/slag-aggregates.cfm).

Typical TCLP Analysis (mg/l)		
	<b>TMS STEEL SLAG</b>	<b>EPA Max.</b>
Arsenic	0.002	5.0
Barium	1.400	100.0
Cadmium	0.002	1.0
Chromium	0.038	5.0
Lead	0.004	5.0
Mercury	0.0002	0.2
Selenium	0.003	1.0
Silver	0.005	5.0

Physical Properties		
LA abrasion	(ASTM C 535-96)	18-25% loss
Sodium sulfate	(ASTM C 88)	4-10% loss
Density	(ASTM C 29)	100-140 lbs./ft <sup>3</sup>
Absorption	(ASTM 128-97)	2-4%
Compaction	(ASTM D 1557C)	130-156 lbs./ft <sup>3</sup> @ Optimum Moisture

Major Primary Mineral Constituents (Molecular and Structural Formula)		
Wustite	iron oxide	[FeO]
Spinel Group	magnesium aluminum oxide	[MgAl <sub>2</sub> O <sub>4</sub> ]
Magnetite	iron oxide	[Fe <sub>3</sub> O <sub>4</sub> ]
Gehlenite	calcium aluminum silicate	[Ca <sub>2</sub> Al(AlSiO <sub>7</sub> )]
Merwinite	calcium magnesium silicate	[Ca <sub>3</sub> Mg(SiO <sub>4</sub> ) <sub>2</sub> ]
Larnite/Belite/C <sub>2</sub> S	calcium silicate	[Ca <sub>2</sub> SiO <sub>4</sub> ]
Calcio-Olivine	calcium silicate	[Ca <sub>2</sub> SiO <sub>4</sub> ]
Srebrodolskite	calcium iron oxide	[Ca <sub>2</sub> Fe <sub>2</sub> O <sub>5</sub> ]
Bredigite	calcium magnesium silicate	[Ca <sub>14</sub> Mg <sub>2</sub> Si <sub>8</sub> O <sub>32</sub> ]
Amorphous		

For more information please contact:

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