

## > Erosion Control with TMS International Steel Slag

### EXCEPTIONAL DURABILITY AND RESISTANCE

- Exceptional durability as indicated by LA Abrasion Test ASTM-C535
- Exceptional resistance to chemical attack, freeze-thaw and wet-dry degradation influences as indicated by Soundness Test ASTM-C88



### EXCELLENT QUALITY CONTROLLED MATERIAL

- Quality controlled material meets all applicable EPA standards
- Excellent for Gabion, loose-underpass and de-silting applications



### LONG-LIFE PERFORMANCE AND STABILITY

- Approved and used by U.S. Corps of Engineers
- Heavy interlocking pieces promote stability with a high angle of repose
- Maintenance-free, long-life performance
- Density of slag will improve stability in slopes while still allowing for drainage



## 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:

1155 Business Center Drive Horsham, PA 19044 • **Phone:** 215-956-5500 • **Fax:** 215-956-5589 • **Toll Free:** 1-855-TMS-SLAG

**TMS International Slag Sales Department** • **Email:** [slag@tmsinternational.com](mailto:slag@tmsinternational.com) • **www.tmsinternational.com**