NORTH STAR BLUESCOPE STEEL LLC Material Specification

Process Area: EAF	Number: AL 27
Material: Foamy Slag Barley (Anthracite Injection Carbon)	Effective Date: 12/07/17
Authorized By: Rex McClanahan	Review Date: 12/07/18

1.0 Application:

EAF addition for processing purposes.

2.0 Chemical Analysis and Material Properties:

Element	Absolute min.	Preferred min.	Preferred max.	Absolute max.
Carbon	75.0%			
Sulfur				1.0%
Moisture				2.0%
Volatile				8.0%
Ash				15.0%

3.0 Packaging:

- 3.1 Bulk delivered in pneumatic tanker truck each shipment to be identified with lot number.
- 3.2 Supersacks 4000 lb. per supersack must be shipped on flatbed truck tarped.
- 3.3 The North Star BlueScope Steel Raw Material Number must appear on all shipping and billing paperwork.

4.0 Sizing:

		Screen Size	Cumulative wt% Retained
Oversized	>3/16	1/4"	Max
	3/16" x 3/32"	4 mesh	75% Min
Barley	3/10 X 3/32	8 mesh	75% IVIIII
#4	3/32" x 3/64"	16 mesh	85% Min
		40 mesh	
#5	3/64" x 100 Mesh	60 mesh	99% Min
		100 mesh	
Undersized	< 100 Mesh	Pan	100%

5.0 Certification and Control:

- 5.1 Each lot received to include statements of conformity and certification. These documents must be handed in at the scales and include:
 - Certification for Carbon, and Sulfur.
 - Quantity
 - Name of material
 - Lot number
- 5.2 All chemical constituents not expressed but are contained in the subject material may not exceed 0.5% (except for Al) collectively. Any material lot exceeding 0.5% must have prior approval by purchasing before shipment is made and analysis included on certification.
- 5.3 Material is subject to inspection at North Star BlueScope Steel to test adherence to specification. All material supplied to this specification must be equivalent in all respects to the material on which approval was originally granted.

6.0 Relevant Industry Standards (e.g. ASTM):

N/A

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7.0 Hazardous Material:

If this material is hazardous or requires special handling or storage, this information must be clearly labeled on containers and shipping documents. MSDS Sheets must also be sent to purchasing manager for new materials.

8.0 Attachments/Reference Documents:

N/A

<u>Rev.</u>	Date	Description of change	Reason for change:
0.0	12/07/17	Original	New material sizing