

***NORTH STAR BLUESCOPE STEEL LLC* Material Specification**

Process Area: EAF	Number: AL 36.11
Material: High Cal Lime	Effective Date: 01/16/18
Authorized By: Jim Fox	Review Date: 01/16/19

1.0 Application:

Furnace lime addition.

2.0 Chemical Analysis and Material Properties:

Element	Absolute min.	Preferred min.	Preferred max.	Absolute max.
CaO Total	95%			
CaO Available	92%			
Al ₂ O ₃				1.0%
MgO				3.0%
FeO				0.50%
SiO ₂				1.0%
S				0.05%
Loss on Ignition				1.75%

3.0 Packaging:

- 3.1 Bulk Dump Truck (Covered) - each shipment to be identified with lot number
- 3.2 Bulk pneumatic Truck - each shipment to be identified with lot number
- 3.3 Supersack 4000lb per pallet when ordered this way - must be shipped on flatbed truck.
- 3.4 The North Star BlueScope Steel Raw Material Number must appear on all shipping and billing paperwork.

4.0 Sizing:

3/4" X 1/4"

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 Sulfur, LOI and % >1/4"
 - 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% 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. Material submitted must undergo laboratory testing and operating trials prior to approval. 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

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

Prepared by: Kevin Jessing	Page 1 of 2
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Rev	Date	Description of change	Reason for change:
	12/07/11	Reviewed and reauthorized	Annual review
	12/14/12	Reviewed and reauthorized	Annual review
	12/17/13	Reviewed and reauthorized	Annual review
	11/20/14	Reviewed and reauthorized	Annual review
	10/22/15	Reviewed and reauthorized	Annual review
	12/09/16	Reviewed and reauthorized	Annual review
	01/04/17	Reviewed and reauthorized	Annual review
	01/16/18	Reviewed and reauthorized	Annual review