

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

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| Process Area: Scrap Yard | Number: SY 22.16 |
| Material: Pig Iron | Effective Date: 03/04/21 |
| Authorized By: Rex McClanahan | Review Date: 03/04/22 |

1.0 Application:

This specification is to be used for Standard Pig Iron

2.0 Chemical Analysis and Material Properties:

| | | | |
|------------------------------------|----------|-------------|-----------|
| Copper | .02% max | Sulfur | .05% max |
| Chromium | .02% max | Phosphorous | .08% max |
| Nickel | .02% max | Tin | .01% max |
| Moly | .02% max | Carbon | 4.00% min |
| 0.5% by weight oil and grease max. | | | |

3.0 Packaging:

Bulk dump truck or rail car with a minimum density of 165 lbs per cu ft.

4.0 Sizing:

4"x4"x4"

Uniform ingots to suppliers pigging capability.

Broken pieces and fines (2"x2"x2") not to exceed 0.5%

5.0 Certification and Control

Unless otherwise specified, all grades shall be free of non-ferrous metals and non-metallics of any kind, including excessive dirt, loose turnings, cast iron, swarf, grinding dust, scale, oil, grease, excessive rust, tern plate, tin plate, detinned material, babbitt, resulfurized metal, galvanized metal, stainless steel, chrome, vitreous enamel coatings, and any contaminant associated with hazardous air pollutants (chlorinated plastics, free liquids, lead, or mercury). Supplier shall supply certificates of quality compliance.

6.0 Relevant Industry Standards (e.g. ASTM)

Testing per ASTM E - 1806 – 96

7.0 Hazardous Material

All virgin iron must **NOT CONTAIN RADIOACTIVE MATERIALS, HAZARDOUS MATERIALS/WASTE, AND SEALED CONTAINERS.** Violation of any of the above will result in rejection of load and notification of appropriate local, state, and federal agencies where applicable. Supplier shall certify compliance.

8.0 Attachments/Reference Documents:

Must be manufactured pig iron - origin and manufacturer to be supplied.

| Rev | Date | Description of change | Reason for change: |
|------------|-------------|------------------------------|---------------------------|
| | 01/05/16 | Reviewed and Reauthorized | Annual Review |
| | 01/31/17 | Reviewed and Reauthorized | Annual Review |
| | 03/02/18 | Reviewed and Reauthorized | Annual Review |
| | 02/25/19 | Reviewed and Reauthorized | Annual Review |
| | 02/27/20 | Reviewed and Reauthorized | Annual Review |
| | 03/04/21 | Reviewed and Reauthorized | Annual Review |

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| Prepared by: Steve Zalucha | Page 1 of 1 |
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